



IMPROVING THE DIGITAL COMPETENCY OF LEARNING GUIDANCE TUTORS THROUGH THE ADDIE-BASED CONTINUING PROFESSIONAL DEVELOPMENT (CPD) PROGRAM

Finda Vericha Ngenda¹, Ahmad Suriansyah², Aslamiah³

^{1, 2, 3} Postgraduate, Universitas Lambung Mangkurat, Indonesia

¹ vindaerika@gmail.com, ² a.suriansyah@ulm.ac.id, ³ aslamiah@ulm.ac.id

Abstract

Continuing Professional Development (CPD) is an essential component of educational human resource management aimed at improving tutors' competencies in responding to the demands of twenty-first-century learning. Preliminary observations indicate that tutors teaching at BUNGA Tutoring Center still face limitations in designing digital learning media that are engaging and easily accessible for learners. This condition highlights the need for a structured, simple, and relevant CPD program within the context of non-formal educational human resource management. This study aims to develop a CPD program based on the ADDIE model to enhance tutors' competencies in designing digital learning media using Google Sites. The study employs a research and development (R&D) approach using the ADDIE model, which consists of the stages of Analysis, Design, Development, Implementation, and Evaluation. The research participants comprised 15 tutors teaching at elementary, junior high, and senior high school levels. Data were collected through pre-tests, post-tests, product assessments, response questionnaires, and observations. Data analysis was conducted using descriptive quantitative and qualitative techniques. The results indicate an improvement in tutors' competencies, as evidenced by increased pre-test and post-test scores with a high N-Gain category. The developed digital learning media products were categorized as good to very good, and tutors' responses to the CPD program were classified as highly positive.

Keywords: Continuing Professional Development (CPD), ADDIE Model, Google Sites

Abstrak

Pengembangan profesional berkelanjutan (Continuing Professional Development/CPD) merupakan bagian penting dalam manajemen sumber daya manusia pendidikan untuk meningkatkan kompetensi tutor dalam menghadapi tuntutan pembelajaran abad ke-21. Hasil observasi awal menunjukkan bahwa tutor yang mengajar di Bimbel BUNGA masih memiliki keterbatasan dalam mendesain media pembelajaran digital yang menarik dan mudah diakses peserta didik. Kondisi ini menuntut adanya program CPD yang terstruktur, sederhana, dan relevan dalam konteks manajemen sumber daya manusia pendidikan nonformal. Penelitian ini bertujuan mengembangkan program CPD berbasis model ADDIE guna meningkatkan kompetensi tutor dalam mendesain media pembelajaran digital menggunakan Google Sites. Penelitian ini merupakan penelitian pengembangan (R&D) dengan model ADDIE yang meliputi tahap Analysis, Design, Development, Implementation, dan Evaluation. Subjek penelitian terdiri dari 15 tutor pada jenjang SD hingga SMA. Data dikumpulkan melalui pre-test, post-test, penilaian produk, angket respons, dan observasi. Analisis data dilakukan secara deskriptif kuantitatif dan kualitatif. Hasil penelitian menunjukkan adanya peningkatan kompetensi tutor yang ditunjukkan oleh peningkatan skor pre-test dan post-test dengan kategori N-Gain tinggi. Produk media pembelajaran yang dihasilkan berada pada kategori baik hingga sangat baik, serta respons tutor terhadap program CPD tergolong sangat positif.

Kata Kunci: Pengembangan Profesional Berkelanjutan (CPD), Model ADDIE, Google Sites



© Author(s) 2026

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

INTRODUCTION

Continuing Professional Development (CPD) is a crucial element in efforts to improve the quality of education, particularly as tutors face the increasingly complex demands of 21st-century learning. Tutors are no longer simply required to master teaching materials but also to design adaptive, creative, and technologically relevant learning experiences. In both formal and non-formal educational institutions, CPD serves not only as a means of improving individual competency but also as part of a sustainable human resource management strategy.¹

From an educational administration perspective, CPD is viewed as a managerial instrument that plays a role in systematically improving educator performance and professionalism. A well-designed CPD program enables educational institutions to align tutor competency development needs with institutional goals and the demands of a constantly changing educational environment. Schleicher² and the OECD³ emphasize that the quality of an education system is significantly influenced by how educator professional development is planned, implemented, and continuously evaluated. Therefore, CPD cannot be positioned as a one-time training activity, but rather as part of the educational management cycle that encompasses the planning, implementation, and evaluation of human resource development programs.

However, various studies show that the implementation of CPD in the field still faces several obstacles. Many tutors, particularly in non-formal educational institutions, still experience competency gaps, particularly in the use of learning technology and digital media design. Research by Suyanto and Jihad⁴ shows that educator professional development without institutional planning and program continuity tends to have limited impact. Similar findings were also presented by Revina and Pramana⁵, who emphasized that improving tutor competency requires systemic support from the institution, not just incidental technical training.

In training program development, the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model is widely used because it provides a structured and easily evaluated framework. Although this model is often applied in the development of teaching materials, the ADDIE approach is also relevant for use in CPD development because each stage reflects the basic functions of educational management, from needs analysis to program evaluation.

¹ S. Revina and A. Pramana, "Pengembangan Profesional Berkelanjutan Pendidik Dalam Konteks Pembelajaran Digital," *Jurnal Manajemen Pendidikan* 15, no. 1 (2023): 1–13.

² A. Schleicher, *World Class: How to Build a 21st-Century School System* (OECD Publishing, 2020).

³ OECD, *Teachers at the Centre of Education Recovery* (OECD Publishing, 2021).

⁴ Suyanto and A. Jihad, "Pengembangan Profesional Pendidik Berbasis Kebutuhan Dan Praktik Pembelajaran," *Jurnal Administrasi Pendidikan* 28, no. 1 (2021): 45–58.

⁵ Revina and Pramana, "Pengembangan Profesional Berkelanjutan Pendidik Dalam Konteks Pembelajaran Digital."

Kosan⁶ shows that the application of the ADDIE model in educator professional development can improve the clarity of training objectives and the measurability of achieved results, thereby supporting managerial decision-making in CPD program management.

As the demand for digital learning increases, mastery of technology-based learning media has become a crucial component of tutors' professional competencies. One platform that is relatively accessible and flexible is Google Sites. In this study, Google Sites is positioned not only as a digital learning medium but also as an integrative platform that enables the management of various learning resources and applications within a single platform. Through Google Sites, tutors can integrate results from various learning support applications, such as interactive Kahoot-based quizzes, visual media from Canva, and animated videos from Powtoon, allowing for integrated access to learning materials, activities, and evaluations. This approach enables tutors to manage learning content more systematically and supports the effectiveness of digital learning.⁷

Tutors teaching at the BUNGA tutoring institution face a dual challenge: meeting formal learning standards in schools while simultaneously providing engaging and effective tutoring services. Limited tutor competency in designing and managing digital learning media has the potential to hinder the quality of non-formal education services. Therefore, the development of a CPD program based on the ADDIE model, which focuses on improving tutor competency in designing digital learning media using Google Sites, is relevant not only from a pedagogical perspective but also from an educational administration perspective, particularly in the professional and sustainable management of non-formal education human resources.

Based on this background, this study aims to develop a CPD program based on the ADDIE model to improve the competence of tutors at Bimbel BUNGA in designing digital learning media using Google Sites, as well as to test the effectiveness of the program as part of efforts to develop human resources in non-formal education.

LITERATURE REVIEW

Tutor Professional Development (Continuing Professional Development)

Tutor professional development, or Continuing Professional Development (CPD), is a systematic and ongoing process aimed at improving tutors' competencies, knowledge, skills, and professional attitudes throughout their careers. CPD is seen as a crucial component of educational

⁶ Kosan, "Penerapan Model ADDIE Dalam Pengembangan Profesional Tutor," *Jurnal Pendidikan Dan Pelatihan* 7, no. 2 (2023): 89–101.

⁷ W. Yanto et al., "Pengembangan Media Pembelajaran Berbasis Google Sites," *Jurnal Pendidikan Teknologi* 17, no. 2 (2023): 95–107; J. Tondeur et al., "A Comprehensive Analysis of Teachers' ICT Competencies," *Computers & Education* 173 (2021): 104271.

human resource management because it directly contributes to the ongoing improvement of the quality of learning and tutor performance.⁸

In the context of 21st-century education, CPD is no longer limited to improving mastery of teaching materials, but also encompasses developing tutors' adaptive competencies to technological changes and student needs. Revina and Pramana⁹ emphasized that effective CPD must be designed based on tutors' real-world needs and implemented sustainably to have a long-term impact on learning quality.

Quality tutor professional development needs to be systematically designed and oriented toward improving teaching practices. Recent research shows that effective Continuing Professional Development (CPD) programs are characterized by a focus on content relevant to teaching tasks, active participant engagement in the learning process, support for collaboration between tutors, and ongoing implementation. CPD with these characteristics has been shown to have a more significant impact on improving tutors' professional competence than incidental or short-term training.¹⁰

Effective tutor professional development needs to be designed sustainably and based on the tutors' real needs. A study by Lafferty et al.¹¹ showed that a systematically and contextually designed Continuing Professional Development (CPD) program significantly improved tutors' professional competence, particularly when the training was directly linked to the teaching practices and challenges tutors face in the classroom. These findings underscore the importance of CPD not being incidental but rather integrated into tutors' ongoing professional development.

ADDIE Model in Developing Tutor Training Programs

The ADDIE model is an instructional design model that remains relevant for use in developing training and learning programs because it has systematic and structured stages: Analysis, Design, Development, Implementation, and Evaluation. This model enables program designers to develop training that aligns objectives, materials, strategies, and evaluation, allowing for a planned and measurable program development process.¹²

From an educational administration perspective, the ADDIE model is understood not only as a learning design framework but also as an approach that supports the planning and evaluation

⁸ K. Lafferty et al., "Designing Effective Continuing Professional Development for Educators," *Professional Development in Education* 50, no. 1 (2024): 85–99.

⁹ Revina and Pramana, "Pengembangan Profesional Berkelanjutan Pendidik Dalam Konteks Pembelajaran Digital."

¹⁰ Lafferty et al., "Designing Effective Continuing Professional Development for Educators"; E. Merino et al., "Practice-Based Professional Development and Teacher Competence Growth," *Teaching and Teacher Education* 133 (2025): 104276, <https://doi.org/10.1016/j.tate.2024.104276>.

¹¹ Lafferty et al., "Designing Effective Continuing Professional Development for Educators."

¹² N. A. Zulkepli et al., "Instructional Design Models in Professional Development," *Education and Information Technologies* 29 (2024): 1123–41.

of educational programs. The analysis phase serves as the basis for planning by identifying needs and institutional contexts, while the design and development phase supports program organization by designing materials and strategies aligned with objectives. The implementation and evaluation phase then serves to assess the program's implementation and effectiveness as a basis for managerial decision-making in educational program management.¹³

In the context of tutor professional development, the application of the ADDIE model allows CPD programs to be designed based on real needs and systematically evaluated. Research by Kosan¹⁴ shows that using ADDIE in tutor training can improve competency achievement because each stage of program development is based on an analysis of participant needs and concludes with a structured evaluation. This finding aligns with the research by Tondeur et al.,¹⁵ which confirms that the effectiveness of educators' digital competency development is significantly influenced by the quality of training program planning and evaluation.

The ADDIE model's advantage lies in its flexibility in application to various training contexts, including developing tutors' digital competencies. Research by Wibowo and Suyanto shows that systematically designed and continuously evaluated educator training programs have a more significant impact on improving educator professionalism. Therefore, the ADDIE model is considered relevant for use in CPD programs aimed at improving tutors' abilities to design and manage digital learning media effectively and sustainably.

Digital Learning Media in Learning

Digital learning media is a learning tool that utilizes information and communication technology to support interactive and flexible learning processes. The use of digital media allows for the delivery of materials in various formats, thereby increasing student engagement and motivation.

Tutor digital competence is a crucial element in technology-based learning. Merino et al.¹⁶ emphasized that developing tutor digital competence through professional training should focus on pedagogical and application skills, not just technical mastery. Training that emphasizes hands-on practice has proven more effective in improving tutors' readiness to utilize digital learning media meaningfully.

Tutors' ability to design digital learning media is a crucial competency in modern learning. Digital media serves not only as a tool for delivering material but also as a means of independent

¹³ Zulkepli et al., "Instructional Design Models in Professional Development."

¹⁴ Kosan, "Penerapan Model ADDIE Dalam Pengembangan Profesional Tutor."

¹⁵ Tondeur et al., "A Comprehensive Analysis of Teachers' ICT Competencies."

¹⁶ Merino et al., "Practice-Based Professional Development and Teacher Competence Growth."

learning that can be accessed anytime and anywhere. Therefore, developing tutor competencies in digital media needs to be an integral part of professional development programs.¹⁷

Google Sites as a Digital Learning Medium

Google Sites is a web-based platform widely used in the development of digital learning media due to its ease of use and its ability to integrate with various Google services. This platform allows tutors to systematically compile and manage learning materials without requiring programming skills, making it relatively easy to adapt to various educational contexts, including non-formal education.¹⁸

Various studies have shown that using Google Sites can improve the accessibility of learning materials and increase student engagement. Google Sites' ability to combine various content formats, such as text, visuals, videos, and links to learning resources, allows for a more structured and accessible presentation of materials. This provides tutors with the opportunity to design lessons that are more responsive to student needs and support flexible learning processes.¹⁹

In the context of tutor professional development, Google Sites serves not only as a learning medium but also as a platform for managing learning content that supports the effectiveness of learning organizations. Through Google Sites, tutors can integrate various learning support applications into a single, unified platform, allowing for more planned and efficient management of learning materials, activities, and evaluations. From an educational administration perspective, tutors' ability to systematically manage learning content is part of an effort to improve the effectiveness of learning management at the organizational level, particularly in non-formal educational institutions that demand flexibility and efficiency in the delivery of educational services.²⁰

Furthermore, the use of integrated digital platforms such as Google Sites contributes to increasing the effectiveness of learning organizations by simplifying learning workflows, providing consistent material presentation, and providing easy access for tutors and students. Recent research shows that the use of centrally managed digital learning platforms can support collaboration, efficient learning management, and the sustainability of digital learning practices at the educational

¹⁷ Revina and Pramana, "Pengembangan Profesional Berkelanjutan Pendidik Dalam Konteks Pembelajaran Digital."

¹⁸ Yanto et al., "Pengembangan Media Pembelajaran Berbasis Google Sites."

¹⁹ N. Hasanah et al., "Pemanfaatan Google Sites Sebagai Media Pembelajaran Digital," *Jurnal Teknologi Pendidikan* 24, no. 1 (2022): 33–45.

²⁰ Tondeur et al., "A Comprehensive Analysis of Teachers' ICT Competencies"; T. Trust et al., "Leading by Learning: Exploring Teacher Professional Learning Networks," *Educational Technology Research and Development* 70, no. 3 (2022): 1257–76.

organization level.²¹ Therefore, Google Sites is relevant for use in CPD programs as a means of strengthening tutor competencies and as part of a strategy to increase the effectiveness of learning organizations in non-formal educational institutions.

The Relationship between CPD, the ADDIE Model, and Tutor Digital Competence

Continuing Professional Development (CPD), the ADDIE model, and tutor digital competencies are three interrelated elements in efforts to improve the quality of education. CPD serves as a framework for ongoing educator professional development, while the ADDIE model provides a systematic approach to designing, implementing, and evaluating such development programs. In the context of educational administration, the integration of CPD and the ADDIE model enables the management of tutor training programs to be more planned, measurable, and oriented toward achieving institutional goals.²²

The application of the ADDIE model in CPD provides a foundation for designing tutor training that is based on real-world needs and is practice-oriented. The needs analysis phase helps educational institutions identify tutor competency gaps, while the design and development phase ensures that training materials and strategies align with learning demands. Subsequent program implementation and evaluation serve as the basis for managerial decision-making in the ongoing professional development of tutors. Thus, ADDIE serves not only as an instructional design model but also as a management tool for managing educational human resource development.

Regarding tutors' digital competencies, systematically designed CPD through the ADDIE model provides tutors with the opportunity to develop both pedagogical and technological skills in a balanced manner. Merino et al.²³ emphasized that an applied and contextual CPD program can improve educators' readiness to utilize learning technology effectively. This demonstrates that strengthening tutors' digital competencies is inseparable from the quality of CPD program planning and management. Therefore, integrating CPD and the ADDIE model is a relevant approach to supporting the improvement of tutors' digital competencies as part of professional and sustainable human resource management in education.

RESEARCH METHODS

This study used a Research and Development (R&D) approach with the ADDIE development model, which includes five stages: Analysis, Design, Development, Implementation,

²¹ A. C. Kafyulilo et al., "Teacher Design in ICT-Enhanced Learning Environments," *Education and Information Technologies* 26 (2021): 6501–22; S. Rahmawati and T. Hidayat, "Contextual Character Education through Experiential Learning: Strengthening Students' Prosocial Behavior in Indonesian Schools," *Jurnal Pendidikan Dan Pembelajaran* 29, no. 1 (2022): 55–68.

²² Kosan, "Penerapan Model ADDIE Dalam Pengembangan Profesional Tutor."

²³ Merino et al., "Practice-Based Professional Development and Teacher Competence Growth."

and Evaluation. The ADDIE model was chosen because it provides a systematic and structured framework for developing training programs and allows for a comprehensive evaluation of program effectiveness.²⁴

Types and Design of Research

This research focuses on the development of a Continuing Professional Development (CPD) program designed to improve tutors' competency in designing digital learning media using Google Sites. This development research design was chosen because it not only produces a product in the form of a CPD program but also tests the program's effectiveness in improving tutor competency.

Research Subjects

The research subjects were 15 tutors who teach at Bimbel BUNGA, from elementary/Islamic elementary schools (SD/MI), junior high schools (SMP/MTs), and senior high schools (SMA/SMK). Subjects were selected purposively, considering that tutors face more complex demands in designing engaging and accessible learning for students.

Development Procedures

The research procedure follows the ADDIE model stages as follows:

1. Analysis

The analysis phase was conducted to identify tutors' competency needs in designing digital learning media. The needs analysis was conducted through brief interviews and questionnaires to map tutor competency gaps.

2. Design

The design phase includes developing CPD program objectives, designing training materials, determining training strategies, and developing research instruments. The training materials are designed to improve tutors' skills in designing digital learning media using Google Sites.

3. Development

The development phase involves developing CPD modules, presentation materials, and examples of Google Sites-based learning media. Validation of the materials is also conducted at this stage to ensure content suitability and alignment with training objectives. During the development phase, tutors are trained to develop digital learning media using Google Sites as

²⁴ Zulkepli et al., "Instructional Design Models in Professional Development."

the primary platform, integrating various web-based learning media, such as presentations, learning videos, and online evaluation tools.

4. *Implementation*

The implementation phase was carried out through training for 15 tutors. Activities included a pre-test, material delivery, hands-on Google Sites creation, mentoring, and a post-test. Each tutor produced a digital learning media product as a result of the training.

5. *Evaluation*

The evaluation phase is conducted in both formative and summative ways. Formative evaluation includes observing the training process, while summative evaluation includes analyzing pre- and post-test score improvements, assessing learning media products, and analyzing tutor responses to the CPD program.

Data collection technique

Research data was collected using several instruments, namely:

1. Tests (pre-test and post-test) to measure the improvement of tutor understanding,
2. Google Sites-based digital learning media product assessment sheet,
3. Tutor response questionnaire regarding the implementation of the CPD program,
4. Observation sheet during training activities.

The research instrument was validated through expert judgment involving two validators. Validation was conducted to ensure the instrument's suitability for the research objectives, clarity of wording, and suitability before use in data collection. Input from the validators was used as a basis for instrument improvements before the implementation phase.

Data Analysis Techniques

Quantitative data were analyzed descriptively by calculating the average value and percentage increase in pre-test and post-test scores. Qualitative data from observations and questionnaires were analyzed through data reduction, data presentation, and conclusion drawing to obtain a comprehensive picture of the effectiveness of the developed CPD program.

Quantitative data analysis was conducted to determine the increase in tutors' understanding before and after participating in the CPD program. This increase was analyzed using N-Gain, which is calculated based on the difference between pre-test and post-test scores relative to the maximum score. The N-Gain formula used is as follows:

$$\text{N-Gain} = \frac{92,1 - 70,7}{100 - 70,7} = \frac{21,4}{29,3} = 0,73$$

The results of the N-Gain calculation are then interpreted into improvement categories, namely high if the N-Gain value is ≥ 0.70 , moderate if the N-Gain value is in the range of $0.30 \leq g < 0.70$, and low if the N-Gain value is < 0.30 . This interpretation is used to assess the effectiveness of the CPD program in improving tutor understanding and competence.

RESULTS AND DISCUSSION

Improving Tutor Competence Based on Pre-test and Post-test Results

Pre-test and post-test results were used to measure the improvement in tutors' understanding after participating in the Continuing Professional Development (CPD) program based on the ADDIE model. The pre-test was administered before the training, while the post-test was administered after the entire training and practical training on creating digital learning media using Google Sites were completed. This approach allowed for a comprehensive evaluation of changes in tutors' understanding and skills after participating in the professional development program. The results are presented in Table 1.

Table 1. ResultsTutor Competency Improvement Based on Pre-test and Post-test Results

Assessment Aspects	Average Score	Category
<i>Pre-test</i>	70.7	Enough
<i>Post-test</i>	92.1	Very good
<i>N-Gain</i>	0.73	Tall

Source: Research data, 2025

The analysis results show that all tutors experienced an increase in scores after participating in the CPD program. The average pre-test score for tutors was 70.7, while the average post-test score increased to 92.1, indicating an increase of 21.4 points or approximately 30.27 percent on a scale of 0–100. Based on the N-Gain calculation, a value of 0.73 was obtained, which is included in the high category ($g > 0.7$). These findings indicate that the developed CPD program is effective in improving tutors' understanding of the concepts and practices of digital learning media design.

The increase in pre-test and post-test scores indicates that the ADDIE-based CPD program significantly improved tutor competency. This finding aligns with research by Lafferty et al.,²⁵ which found that systematically designed, needs-based tutor professional development positively impacts understanding and skills. This finding is further supported by Merino et al.,²⁶ who asserted that CPD that integrates hands-on practice results in more consistent competency gains than

²⁵ Lafferty et al., “Designing Effective Continuing Professional Development for Educators.”

²⁶ Merino et al., “Practice-Based Professional Development and Teacher Competence Growth.”

theoretical training. Similar findings were also presented by Timperley et al.,²⁷ who emphasized the importance of ongoing, practice-oriented tutor professional development.

The effectiveness of the CPD program in this study is inseparable from the application of the ADDIE model as a training design framework. The ADDIE model allows each stage of training to be systematically designed, from needs analysis to evaluation, thus supporting the achievement of training objectives. This finding aligns with Zulkepli et al.²⁸ who stated that ADDIE-based training is effective in improving educator competency. Research by Suyanto and Jihad²⁹ also shows that tutor training designed based on real needs and accompanied by direct practice has a significant impact on improving tutor professional competency.

In addition to quantitative improvements, the findings of this study indicate that ADDIE-based CPD can bridge the gap between tutors' conceptual understanding and practical skills. Relatively high post-test scores indicate that tutors not only understand the concepts of digital learning media but are also able to apply them through practical Google Sites-based media creation. This indicates that a practice-oriented training design provides a more meaningful professional learning experience than a theoretical approach.

Theoretically, these findings reinforce the view that tutor professional development is a form of adult learning that requires active participant involvement. Knowles et al.,³⁰ emphasized that adult learning is more effective when participants are involved in solving problems relevant to their professional duties. In this study, hands-on learning media development enabled tutors to learn through experience, resulting in more sustainable competency development. This aligns with Opfer and Pedder who stated that participatory and contextual tutor professional development enhances engagement and the sustainability of professional learning.

From an educational administration perspective, the results of this study offer important implications for the planning and management of educational human resources. CPD programs designed based on needs and focused on strengthening digital competencies have been shown to improve tutors' preparedness to meet the demands of 21st-century learning. These findings align with those of the OECD³¹ and Schleicher³², which emphasize that investing in digital competency-based tutor professional development is a key strategy for sustainably improving the quality of education systems.

²⁷ H. Timperley et al., *Leading Professional Learning: Practical Strategies for Impact in Schools* (ACER Press, 2020).

²⁸ Zulkepli et al., "Instructional Design Models in Professional Development."

²⁹ Suyanto and Jihad, "Pengembangan Profesional Pendidik Berbasis Kebutuhan Dan Praktik Pembelajaran."

³⁰ M. S. Knowles et al., *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*, 9th ed. (Routledge, 2020).

³¹ OECD, *Teachers at the Centre of Education Recovery*.

³² Schleicher, *World Class: How to Build a 21st-Century School System*.

Thus, the improvement in pre- and post-test scores in this study not only reflects the technical success of the CPD program but also demonstrates the importance of a systematic and contextual approach to tutor professional development. The ADDIE-based CPD program can be seen as a relevant model for further development, both in formal and non-formal educational contexts, as part of a strategy to continuously improve tutor professionalism.

Quality of Google Sites-Based Digital Learning Media Products

In addition to improving conceptual understanding, the effectiveness of the ADDIE-based Continuing Professional Development (CPD) program is also reflected in the quality of the digital learning media products produced by tutors. Each tutor is asked to develop a Google Sites-based learning media as a means of applying the skills acquired during the training. This approach allows for evaluation not only of cognitive aspects but also of tutors' practical skills in designing and developing digital learning media that are suitable for use and relevant to learning needs.

Product quality assessment was conducted using an assessment rubric that covers four main aspects: page structure, content quality, visual appearance, and multimedia integration. The page structure aspect assesses the regularity of the material flow and ease of navigation, content quality assesses the suitability of the material to learning objectives and clarity of presentation, visual appearance assesses aesthetics and readability, while multimedia integration assesses the use of supporting elements such as videos, images, and interactive media. The assessment results showed that 11 tutors were in the very good category and 4 tutors in the good category, with an average overall score of 83.3. The absence of products in the sufficient or poor categories indicates that all training participants were able to meet the minimum standards of digital learning media design competency.

In more detail, the product quality outcomes demonstrated that ADDIE-based training was able to encourage tutors to apply instructional design principles consistently and contextually. Page structure and content quality scored relatively high, indicating that tutors were able to structure the material systematically and relevantly to learning objectives. However, variations in outcomes in visual appearance and multimedia integration indicated that some tutors still needed further reinforcement, particularly in utilizing aesthetic elements and interactivity in digital media. These findings align with research by Kafyulilo et al.,³³ which stated that tutors' active involvement in the digital media design process during professional training significantly contributed to strengthening pedagogical and technological competencies.

³³ Kafyulilo et al., "Teacher Design in ICT-Enhanced Learning Environments."

The findings of this study are also consistent with those of Dewi and Sari³⁴, who found that learning technology training emphasizing hands-on practice significantly improved tutors' skills in designing digital learning media. Furthermore, Hasanah et al.³⁵ reported that the flexibility of web-based learning platforms such as Google Sites makes it easier for tutors to produce structured learning products that are responsive to student needs. This finding is reinforced by Trust et al.,³⁶ who demonstrated that tutor professional development involving digital product design activities can increase tutors' confidence and readiness to integrate technology into learning.

The results of this study support the view in recent literature that direct tutor involvement in digital product development during professional development programs can simultaneously strengthen technological and pedagogical competencies.³⁷ Thus, the quality of the Google Sites-based digital learning media products produced by tutors indicates that ADDIE-based CPD not only enhances conceptual understanding but also facilitates the transformation of knowledge into applicable practical skills in digital learning contexts.

Tutor Responses to the ADDIE Model-Based CPD Program

Tutor responses to the Continuing Professional Development (CPD) program were measured using a four-point questionnaire to obtain an overview of the program's level of acceptance, relevance, and usefulness. The analysis showed that the average tutor response score was in the very positive category, indicating that the developed CPD program was well-received by participants and considered appropriate to their professional needs as tutors. The results of the tutor responses are presented in Table 2.

Table 2. Tutor Response Results to the ADDIE Model-Based CPD Program

Assessment Aspects	Average Score	Category
Clarity of material	3.7	Very good
Benefits of training	3.8	Very good
Relevance to teaching assignments	3.9	Very good
Ease of use of Google Sites	3.6	Very good
Overall satisfaction	3.8	Very good
Overall average	3.76	Very good

³⁴ R. Dewi and P. Sari, "Pelatihan Teknologi Pembelajaran Berbasis Praktik Untuk Meningkatkan Kompetensi Tutor," *Jurnal Teknologi Pendidikan* 25, no. 2 (2023): 145–58.

³⁵ Hasanah et al., "Pemanfaatan Google Sites Sebagai Media Pembelajaran Digital."

³⁶ Trust et al., "Leading by Learning: Exploring Teacher Professional Learning Networks."

³⁷ R. Ramadhan and A. Nugroho, "Pengembangan Kompetensi Teknologi Pendidik Melalui Pelatihan Berbasis Produk," *Jurnal Administrasi Pendidikan* 28, no. 2 (2021): 112–25; D. Setiawan and I. Farida, "Penguatan Kompetensi Pedagogik Dan Teknologi Tutor Melalui Pelatihan Digital," *Jurnal Pendidikan Teknologi Dan Kejuruan* 29, no. 3 (2023): 201–14.

Source: Research data, 2025

The analysis results show that the average tutor response score is in the very good category, indicating that the developed CPD program was well received and considered appropriate to the professional needs of tutors. Specifically, the highest average score was found in the indicator of program relevance to teaching tasks (3.9), indicating that the training materials and activities were perceived as contextual and directly applicable to learning practice. The indicator of training usefulness (3.8) and overall satisfaction (3.8) also showed very positive assessments. Meanwhile, the indicator of Google Sites ease of use obtained a score of 3.6, which remains in the very good category although indicating the need for further guidance for some tutors. These findings indicate that the CPD program has been designed in line with the real needs of tutors in the field, as emphasized by Timperley et al.³⁸ that relevance to the work context is a key factor in the success of educator professional development.

The tutors' positive responses to this CPD program reflect the effectiveness of the ADDIE model-based training design in creating a structured and meaningful professional learning experience. The ADDIE model allows for systematic training development, from needs analysis to evaluation, providing tutors with a clear and easy-to-follow learning path. This finding aligns with research by Zulkepli et al.,³⁹ which showed that ADDIE-based tutor training can increase participant satisfaction and engagement due to its well-organized and goal-oriented learning design.

Furthermore, the high level of tutor satisfaction can also be explained by a training approach that emphasizes hands-on practice and mentoring throughout the learning process. Research by Opfer and Pedder (2022) confirms that participatory and contextual tutor professional development tends to result in higher levels of engagement and increased tutor confidence in implementing new competencies. This finding is supported by Lafferty et al.,⁴⁰ who stated that active and collaborative professional learning experiences positively impact tutor motivation and commitment to implementing learning innovations.

The findings of this study also align with those of Merino et al.,⁴¹ who stated that practice-based and reflection-based CPD can provide a more meaningful professional learning experience than transmissive training. The positive responses from tutors in this study indicate that ADDIE-based CPD not only serves as a means of increasing knowledge but also as a platform for strengthening tutors' motivation and readiness to integrate technology into learning. Therefore, systematic, contextual, and practice-oriented CPD design is a key factor in improving the quality of tutors' professional learning experiences.

³⁸ Timperley et al., *Leading Professional Learning: Practical Strategies for Impact in Schools*.

³⁹ Zulkepli et al., "Instructional Design Models in Professional Development."

⁴⁰ Lafferty et al., "Designing Effective Continuing Professional Development for Educators."

⁴¹ Merino et al., "Practice-Based Professional Development and Teacher Competence Growth."

General Discussion of the Effectiveness of ADDIE-Based CPD Programs

Overall, the research results indicate that the ADDIE-based Continuing Professional Development (CPD) program is effective in improving tutors' competency in designing digital learning media using Google Sites. Improved pre- and post-test scores, the quality of the resulting digital learning media products, and positive tutor responses indicate that the developed CPD program is able to comprehensively address tutors' professional development needs, both in terms of conceptual understanding and application skills.

The effectiveness of this CPD program is closely related to the characteristics of the ADDIE model, which allows for systematic, structured, and needs-based training. Each ADDIE stage, from needs analysis to evaluation, is integrated to support the achievement of expected competencies. This finding reinforces the research findings of Kosan⁴² and Lafferty et al.⁴³ which states that tutor training based on coherent and sustainable instructional design provides a more optimal impact than incidental training.

Furthermore, utilizing Google Sites as a digital learning medium provides tutors with the opportunity to develop more flexible, adaptive, and accessible learning experiences for students. Mastery of digital media is a crucial component of tutors' professional competence in facing the demands of 21st-century learning. Recent research shows that developing tutors' digital competencies through contextualized CPD significantly contributes to increasing tutors' readiness to integrate technology into their learning practices.⁴⁴

From an educational administration perspective, the findings of this study emphasize the importance of planning CPD programs that are oriented towards the real needs of tutors and their work contexts. Revina and Pramana⁴⁵ and Opfer and Pedder emphasize that improving tutor competency will be more sustainable if professional development programs are systematically designed, relevant to teaching practice, and provide opportunities for tutors to learn through direct experience. Therefore, integrating the ADDIE model into CPD is a relevant and strategic approach to supporting the ongoing development of tutors' digital competencies, both in formal and non-formal educational contexts.

⁴² Kosan, "Penerapan Model ADDIE Dalam Pengembangan Profesional Tutor."

⁴³ Lafferty et al., "Designing Effective Continuing Professional Development for Educators."

⁴⁴ OECD, *Teachers at the Centre of Education Recovery*.

⁴⁵ Revina and Pramana, "Pengembangan Profesional Berkelanjutan Pendidik Dalam Konteks Pembelajaran Digital."

CONCLUSION

This study aims to develop a Continuing Professional Development (CPD) program based on the ADDIE model to improve the competence of tutors who teach as tutors at Bimbel BUNGA in designing digital learning media using Google Sites. Based on the research results, all stages of ADDIE development, namely Analysis, Design, Development, Implementation, and Evaluation, can be implemented systematically and produce a structured CPD program that is in accordance with the needs of tutors.

The results of the study indicate that the implementation of the CPD program had a positive impact on improving tutor competency. This was demonstrated by an increase in the average post-test score compared to the pre-test, the quality of Google Sites-based digital learning media products, which were in the good and very good categories, and tutor responses, which were in the very positive category. These findings indicate that tutors not only experienced improved conceptual understanding but also were able to apply the acquired skills in the form of appropriate learning media products.

Thus, it can be concluded that the ADDIE-based CPD program is effective in improving tutor competency in designing digital learning media. This research emphasizes the importance of systematic, needs-based, and practice-oriented tutor professional development, particularly in strengthening digital competencies relevant to the demands of 21st-century learning.

Research Implications

The results of this study have theoretical and practical implications for tutor professional development, particularly in the context of utilizing learning technology. Theoretically, this study strengthens the use of the ADDIE model as an effective design framework in developing Continuing Professional Development (CPD) programs. The findings indicate that a systematic, needs-based approach can significantly improve tutor competency, particularly in mastering digital learning media, thus supporting tutors' ongoing professional development.

Practically, the ADDIE-based CPD program developed in this study can be used as an alternative training model for educational institutions and tutoring institutions to improve tutors' digital competencies. Training that focuses on hands-on practice and produces tangible products has been proven to help tutors develop learning media that is relevant, engaging, and easily accessible to students. This demonstrates that tutor professional development should focus not only on strengthening theoretical knowledge but also on developing practical skills that can be directly applied in the learning process.

From a social and societal perspective, this study demonstrates that tutor professional development through CPD contributes to improving the quality of educational services, making

them more equitable and responsive to students' needs. Tutors with adequate digital competencies can provide more inclusive, flexible, and adaptive learning, thus supporting the role of non-formal educational institutions as part of community empowerment efforts through education.

Furthermore, this research has implications for strengthening educators' professional values. A structured CPD program encourages tutors to carry out their roles more responsibly, professionally, and with a focus on educational benefits. In this context, developing digital competency is seen not only as technological mastery but also as part of the tutor's ethical commitment to managing meaningful and high-quality learning for students.

Another implication of this research relates to the management of human resources in education. Educational institutions, particularly tutoring institutions, need to design CPD programs that are sustainable, contextual, and aligned with developments in learning technology. Therefore, the results of this study can serve as a reference for institutional managers and policymakers in designing tutor professional development strategies that are not only adaptive to technological changes but also oriented towards improving the quality of education and its benefits to society.

Limitations

This study has several limitations that should be considered when interpreting the results. First, the number of study subjects was limited to 15 tutors teaching at a single tutoring institution, so the results cannot be broadly generalized to all educational contexts or institutions with different characteristics. Second, this study focused on the development and evaluation of a CPD program over a relatively short period of time. Therefore, this study did not examine the long-term impact of the CPD program on the consistency of tutors' use of digital learning media in their daily learning practices. Third, the assessment of the effectiveness of the CPD program in this study focused more on improving tutors' understanding and the quality of the resulting digital learning media products. This study did not directly measure the impact of Google Sites on student learning outcomes in depth. These limitations are expected to be considered by future researchers in developing and refining CPD programs, both in terms of subject coverage, training duration, and evaluation indicators used.

Suggestion

Based on the research findings and the limitations outlined, several recommendations can be made. First, further research is recommended to involve a larger and more diverse number of subjects, both in terms of educational level and type of educational institution, so that the results can have broader generalizability. Second, further research is recommended to examine the long-term impact of the ADDIE-based CPD program on the consistency of tutors' use of digital learning

media in their teaching practices. Continuous evaluation is needed to determine the sustainability of the competencies acquired by tutors after the training. Third, further research can develop more comprehensive evaluation indicators by measuring the impact of digital learning media use on learning outcomes and student engagement. Thus, the effectiveness of the CPD program can be reviewed not only from the tutors' perspective, but also from the students' perspective.

Furthermore, educational and tutoring institution managers are advised to incorporate ADDIE-based CPD programs into their tutors' ongoing professional development. Structured, contextual, and practice-oriented training is expected to support improved learning quality and tutor professionalism in facing the demands of technology-based learning.

BIBLIOGRAPHY

- Dewi, R., and P. Sari. "Pelatihan Teknologi Pembelajaran Berbasis Praktik Untuk Meningkatkan Kompetensi Tutor." *Jurnal Teknologi Pendidikan* 25, no. 2 (2023): 145–58.
- Hasanah, N., A. Rahman, and D. A. Putri. "Pemanfaatan Google Sites Sebagai Media Pembelajaran Digital." *Jurnal Teknologi Pendidikan* 24, no. 1 (2022): 33–45.
- Kafyulilo, A. C., P. Fisser, and J. Voogt. "Teacher Design in ICT-Enhanced Learning Environments." *Education and Information Technologies* 26 (2021): 6501–22.
- Knowles, M. S., E. F. Holton, and R. A. Swanson. *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*. 9th ed. Routledge, 2020.
- Kosan. "Penerapan Model ADDIE Dalam Pengembangan Profesional Tutor." *Jurnal Pendidikan Dan Pelatihan* 7, no. 2 (2023): 89–101.
- Lafferty, K., O. McCormack, and J. Sullivan. "Designing Effective Continuing Professional Development for Educators." *Professional Development in Education* 50, no. 1 (2024): 85–99.
- Merino, E., M. García, and R. López. "Practice-Based Professional Development and Teacher Competence Growth." *Teaching and Teacher Education* 133 (2025): 104276. <https://doi.org/10.1016/j.tate.2024.104276>.
- OECD. *Teachers at the Centre of Education Recovery*. OECD Publishing, 2021.
- Rahmawati, S., and T. Hidayat. "Contextual Character Education through Experiential Learning: Strengthening Students' Prosocial Behavior in Indonesian Schools." *Jurnal Pendidikan Dan Pembelajaran* 29, no. 1 (2022): 55–68.
- Ramadhan, R., and A. Nugroho. "Pengembangan Kompetensi Teknologi Pendidik Melalui Pelatihan Berbasis Produk." *Jurnal Administrasi Pendidikan* 28, no. 2 (2021): 112–25.
- Revina, S., and A. Pramana. "Pengembangan Profesional Berkelanjutan Pendidik Dalam Konteks Pembelajaran Digital." *Jurnal Manajemen Pendidikan* 15, no. 1 (2023): 1–13.
- Schleicher, A. *World Class: How to Build a 21st-Century School System*. OECD Publishing, 2020.
- Setiawan, D., and I. Farida. "Penguatan Kompetensi Pedagogik Dan Teknologi Tutor Melalui Pelatihan Digital." *Jurnal Pendidikan Teknologi Dan Kejuruan* 29, no. 3 (2023): 201–14.
- Suyanto, and A. Jihad. "Pengembangan Profesional Pendidik Berbasis Kebutuhan Dan Praktik Pembelajaran." *Jurnal Administrasi Pendidikan* 28, no. 1 (2021): 45–58.
- Timperley, H., F. Ell, D. Le Fevre, and K. Twyford. *Leading Professional Learning: Practical Strategies for Impact in Schools*. ACER Press, 2020.
- Tondeur, J., R. Scherer, F. Siddiq, and E. Baran. "A Comprehensive Analysis of Teachers' ICT Competencies." *Computers & Education* 173 (2021): 104271.
- Trust, T., J. P. Carpenter, and D. G. Krutka. "Leading by Learning: Exploring Teacher Professional Learning Networks." *Educational Technology Research and Development* 70, no. 3 (2022): 1257–76.
- Yanto, W., Waskito, and Purwanto. "Pengembangan Media Pembelajaran Berbasis Google Sites." *Jurnal Pendidikan Teknologi* 17, no. 2 (2023): 95–107.
- Zulkepli, N. A., I. S. M. A. Albakri, F. Khalid, and N. A. Ishak. "Instructional Design Models in Professional Development." *Education and Information Technologies* 29 (2024): 1123–41.