

Optimising the Role of Trainers Through the Use of Educational Technology for the Professional Development of Government Officials

Ika Wulansari^{1*}, Yudan Hermawan², Kiki Irafa Candra³

¹²³Department of Nonformal Education, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

*Email corresponding author: ikawulansari.2024@student.uny.ac.id

Article Info	Abstrak
Article history: Received 12-11-2024 Revised 18-2-2025 Accepted 12-03-2025 Published 22-04-2025 How to cite: Wulansari, I., Hermawan, Y., & Candra, K. I. (2025). Optimising the Role of Trainers Through the Use of Educational Technology for the Professional Development of Government Officials. <i>Edcomtech: Jurnal Kajian Teknologi Pendidikan</i>, 10(1), 13–27. https://doi.org/10.17977/um039v10i12025p13-27 © The Author(s)  This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License	<i>Penelitian ini bertujuan menganalisis bagaimana peran pelatih dioptimalkan untuk meningkatkan profesionalisme aparatur pemerintah desa melalui pemanfaatan teknologi pendidikan. Menggunakan pendekatan kualitatif dengan desain studi kasus deskriptif, penelitian dilaksanakan di Balai Pemerintahan Desa Yogyakarta dengan melibatkan 23 partisipan, terdiri atas 8 pelatih sebagai penyelenggara pembelajaran serta 15 aparatur desa sebagai peserta pelatihan. Data dikumpulkan melalui wawancara mendalam, observasi partisipatif, dan analisis dokumen, kemudian dianalisis secara manual menggunakan model tematik Saldana (2014), mulai dari proses familiarisasi, kategori awal, hingga perumusan tema. Hasil penelitian menunjukkan bahwa pelatih memiliki enam fungsi strategis yang berkontribusi langsung terhadap peningkatan kompetensi aparatur desa. Fungsi tersebut meliputi peran sebagai fasilitator yang menciptakan pengalaman belajar partisipatif, penyampai materi kontekstual yang relevan dengan kebutuhan pemerintahan desa, motivator yang mendorong perubahan sikap dan etos kerja, pendamping pascapelatihan yang memastikan transfer pengetahuan ke praktik kerja, penerjemah kebijakan yang menyederhanakan regulasi bagi aparatur, serta agen perubahan yang mendorong inovasi tata kelola pemerintahan. Integrasi teknologi pendidikan—termasuk platform pembelajaran daring, simulasi digital, dan pendampingan virtual—memperkuat efektivitas proses pelatihan dengan menyediakan akses belajar fleksibel serta mekanisme umpan balik yang berkelanjutan. Temuan ini menegaskan bahwa profesionalisme aparatur desa tidak hanya ditentukan oleh kualitas materi pelatihan, tetapi juga oleh kualitas fasilitasi digital, peran strategis pelatih, dan adanya dukungan sosial yang memungkinkan terjadinya transformasi kompetensi secara berkesinambungan.</i> Kata Kunci: <i>pelatih, profesionalisme aparatur, teknologi pendidikan, pembelajaran orang dewasa, pemerintahan desa</i> Abstract <i>This study examines how trainer roles can be optimised to enhance the professionalism of village government officials through the integration of educational technology. Employing a qualitative approach with a</i>

	<i>descriptive case study design, the research was conducted at the Village Government Training Centre in Yogyakarta and involved 23 participants, comprising 8 trainers as instructional facilitators and 15 village officials as training participants. Data were collected through in-depth interviews, participant observation, and document analysis, and were analysed manually using Saldana's (2014) thematic model, beginning with familiarisation, followed by the development of initial categories, and culminating in the formulation of themes. The findings indicate that trainers perform six strategic and mutually reinforcing functions that directly support the professional development of village officials. These include functioning as learning facilitators who promote participatory engagement; providers of contextualised material aligned with local governance needs; motivators who encourage positive attitudes and work ethics; post-training mentors who ensure the transfer of learning into practice; policy interpreters who simplify regulatory frameworks for practitioners; and change agents who foster innovation within village administration. The integration of educational technology—such as online learning platforms, digital simulations, and virtual mentoring—strengthens the effectiveness of training by offering flexible learning access and sustained feedback mechanisms. Overall, the study demonstrates that the professionalism of village government officials is shaped not only by the substantive content of the training but also by the quality of digital facilitation, the strategic roles carried out by trainers, and the presence of continuous social support that enables meaningful and sustainable competency transformation.</i>
	Keywords: <i>trainers, professionalism, educational technology, adult learning, village governance</i>

INTRODUCTION

In many rural areas in Indonesia, social transformation and increasing demands for transparent governance have created new dynamics in the role of village officials. Since the implementation of Law No. 6 of 2014 on Village Autonomy, village governments are no longer merely executors of central government policies, but have become strategic actors who plan, manage, and account for development programmes based on the unique needs of their communities (Yenduri et al., 2022). This shift has significant implications for the professionalism and competency development of village officials, who are now expected to master administrative, financial, and digital skills in order to fulfil their expanded responsibilities effectively (Nurdiansyah et al., 2022).

Initial observations at the Yogyakarta Village Government Training Centre indicate that several officials struggle to translate central policies into operational practices at the village level. Exploratory interviews revealed that a finance officer from Magelang Regency expressed difficulty in managing financial reporting systems using digital applications, while a village secretary from Purworejo described the challenge of preparing budget plans that align with regulatory standards while addressing urgent community needs. Such issues highlight that, beyond understanding policy frameworks, village officials require continuous professional development that integrates technological literacy and adaptive learning support (Rosilawati et al., 2021).

Globally, literature on public sector training and community development underscores the importance of capacity building through digital education and training models (Nurhayati

et al., 2020). In Indonesia, capacity strengthening for village officials has been pursued through training programmes organised by the Ministry of Villages, local governments, and partnerships with universities. However, recent studies indicate that the success of training initiatives is determined not only by the curriculum, but by the quality of learning facilitation and the pedagogical strategies employed by trainers (Asriandy, 2016). In this regard, the integration of educational technology such as e-learning platforms, digital modules, and virtual simulations offers potential to enhance the interactivity, accessibility, and contextual relevance of the learning process (Candra et al., 2024).

Furthermore, studies show that the trainer's strategic role extends beyond material delivery. Trainers act as learning facilitators, motivators, and post-training mentors, whose digital competence and ability to leverage technology-based media significantly influence participant engagement and knowledge application (Agung Prakoso et al., 2020). Nevertheless, most existing research still concentrates on evaluating training outcomes in terms of measurable skill gains, while social processes, learner experiences, and digital mediation of learning interactions remain underexplored particularly in the context of village governance (Odagiri et al., 2020). This analytical gap neglects the fact that in adult learning, especially within technology-enhanced environments, the dynamics of collaboration, interaction, and digital mentoring are crucial determinants of sustainable learning outcomes (Trapsilowati et al., 2015).

In this context, this study aims to explore the optimisation of trainers' roles through the use of educational technology to enhance the professionalism of government officials at the village level. The focus lies on identifying how trainers design and implement technology-integrated learning strategies, facilitate interactive and contextual training sessions, and provide digital-based mentoring after the formal training period. The research will be conducted at the Yogyakarta Village Government Training Office and involve both trainers and participating officials from multiple regencies.

Theoretically, this study contributes to enriching discussions on digital andragogy and technology-mediated professional development in the public sector. Practically, it offers recommendations for developing more adaptive, participatory, and sustainable training models, aligning with Indonesia's ongoing digital transformation agenda in governance. By emphasising the intersection between human facilitation and technology, this study underlines that the future of village governance capacity building depends not only on policy reform but also on how effectively educational technologies are harnessed by competent and visionary trainers (Nguyen et al., 2024).

METHODS

This study employed a qualitative approach with a descriptive case study design. A qualitative approach was selected because it enables an in-depth exploration of processes, experiences, and interaction dynamics between training instructors and village officials within the real context of governance training. The descriptive case study design was deemed appropriate, as the research focused on a single institutional setting the Yogyakarta Village Government Training Centre which possesses distinctive social, geographical, and organisational characteristics. This choice aligns with (Imsiyah et al., 2024) argument that descriptive case studies are best suited for answering "how" and "why" questions regarding context-bound social phenomena, allowing researchers to capture holistic insights into strategies, behaviours, and meanings constructed by actors involved in the training process (Sukmadinata, 2005).

The research was conducted at the Yogyakarta Village Government Training Centre, a technical implementation unit under the Ministry of Home Affairs responsible for providing governance training to village officials across ten provinces: Banten, DKI Jakarta, West Java, Central Java, Yogyakarta, West Kalimantan, Central Kalimantan, East Kalimantan, South Kalimantan, and North Kalimantan. The diversity of these administrative regions created a socially rich research setting, as participants brought a variety of cultural, administrative, and developmental backgrounds to the training environment. Participants were selected through purposive sampling to ensure the relevance and appropriateness of the information gathered. Instructors were chosen based on a minimum of three years of teaching experience, active involvement in training within the last two years, and willingness to share detailed professional experiences. Village officials were selected based on their strategic roles in village administration (such as village heads, secretaries, division heads, and technical staff), their participation in training within the last two years, and their ability to reflect on how training contributed to their administrative practice. In total, 23 participants were recruited: eight instructors and fifteen village officials allowing for a comparative analysis between training providers and training beneficiaries (Maneenetr & Tran, 2014).

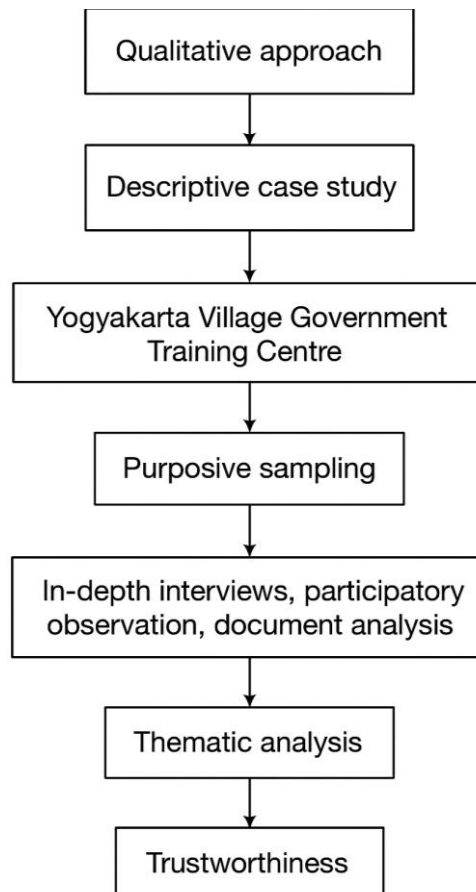


Figure 1. Research flow chart

Data were collected through in-depth interviews, participatory observation, and document analysis. In-depth interviews were conducted both face-to-face and online using semi-structured interview guides, enabling the researcher to explore specific issues while allowing participants the freedom to describe their experiences in their own words. Each interview lasted between 45 and 90 minutes. Digital tools played an important role in this

stage: audio recorders were used to document face-to-face interviews, while Google Meet and Zoom facilitated online interviews with participants residing outside Yogyakarta. WhatsApp was also used for follow-up clarifications and sharing of supporting materials. These digital tools not only ensured efficient communication but also simplified transcription, organisation, and storage of qualitative data. Participatory observation was carried out during the implementation of training sessions, both inside classrooms and in field practice, focusing on patterns of interaction, methods of material delivery, integration of digital technology in instruction, and participants' responses to different pedagogical approaches. Document analysis was conducted using training modules, teaching guidelines, activity reports, and participants' post-training action plans to validate and further strengthen insights obtained from interviews and observations (Einali et al., 2021).

The data analysis process in this study was conducted manually by following simple thematic analysis steps. The first stage was familiarisation with the data, in which the researcher reread all interview transcripts, observation notes, and supporting documents to understand the context, core messages, and general patterns that emerged. At this stage, the researcher made preliminary notes on important points that appeared repeatedly. Once the researcher understood the data as a whole, the next stage was to identify the main ideas or issues from each section of data. The researcher marked quotations or statements that were considered relevant to the research focus, then grouped them manually based on similarities in topic or meaning. This grouping process was carried out in stages until several more focused issue groups were formed. These issue groups are then developed into preliminary themes. Researchers again match these themes with the raw data to ensure that each theme is truly supported by empirical evidence. At this stage, researchers also simplify or combine themes that are similar in meaning, resulting in clear and non-overlapping final themes. The final stage is to compile a narrative of findings, which explains each theme in detail based on field data, including interaction patterns, participant experiences, and the meanings they constructed during the training process. The narrative of findings is compiled sequentially to describe the relationships between themes and provide an in-depth understanding of the phenomenon being studied (Siti Unun Fatayati, Abdul Juli Andi Gani, 2020).

To ensure the trustworthiness of the findings, the study applied four validation criteria proposed by (Londoño, 2008) credibility, transferability, dependability, and confirmability. Credibility was achieved through source triangulation (instructors, village officials, documents), method triangulation (interviews, observations, documentation), and member checking by inviting participants to review and confirm the researcher's interpretations. Transferability was reinforced by providing thick descriptions of the research context, enabling readers to assess the applicability of the findings to similar settings. Dependability was ensured through the maintenance of an audit trail documenting methodological decisions, field notes, and revisions made throughout the research process. Confirmability was strengthened by separating raw data from analytic interpretations, maintaining a reflexive journal to record the researcher's positionality and potential biases, and ensuring that findings were firmly grounded in empirical evidence (Chambers, 1995).

Ethical considerations were upheld by securing formal permission from the Yogyakarta Village Government Training Centre prior to the commencement of the research. All participants were provided with informed consent forms outlining the purpose of the study, data collection procedures, their right to withdraw at any time, and assurances of confidentiality. Participant identities were anonymised using coded identifiers, and all digital and physical data were securely stored with password protection. The entire research process

adhered to ethical standards applicable to social and educational research, ensuring that participants' rights, dignity, and privacy were fully respected (W Creswell, 1989).

RESULT

This section presents empirical findings from research conducted at the Village Administration Training Centre in the Special Region of Yogyakarta. The findings were obtained through in-depth observation of the training process, semi-structured interviews with 12 trainers and 26 village officials from five districts, and examination of documents and digital artefacts used during and after the training. The results of the study reveal that the role of trainers in improving the professionalism of village officials is not limited to delivering material, but includes various interrelated strategic functions that take place dynamically throughout the learning process. Trainers act as learning facilitators, conveyors of contextual material, drivers of professional motivation, post-training implementation mentors, policy bridges, agents of change, actors who negotiate with the socio-cultural context, and catalysts for the formation of professional identity through technology integration.

The following findings are presented in a narrative form that describes the participants' experiences and the dynamics of the training process in more detail.

Trainers as Facilitators of Dialogic Learning

Research findings show that trainers play the role of facilitators who create a participatory, dialogic, and collaborative learning atmosphere. They do not position themselves as the sole authoritative source of knowledge, but rather as guides in the learning process who enable participants to build knowledge independently and collaboratively. Field observations reveal patterns of learning interaction that emphasise the exploration of experiences, case discussions, and hands-on practice.

In a training session on village financial management using the Siskeudes application, a trainer opened the class with an open question, rather than giving a one-way lecture:

'Let's examine this together. Who has experienced difficulties using the Siskeudes application? Tell us about your case, and we will learn from it.'

This statement sparked an intense discussion among the participants. Several participants who were initially passive began to share concrete experiences, such as data input errors or confusion in reading the digital report menu. The trainer then responded to these experiences by linking them to the relevant application features, while providing live screen simulations via a projector.

This dialogic interaction created a meaningful learning experience. One village treasurer admitted that she initially felt unsure about using the digital financial system:

"I used to be afraid of clicking the wrong button; it seemed so complicated. But after practising step by step, I realised that the logic was understandable."

The trainer's approach of allowing room for failure and experimentation (learning by doing) proved effective in reducing technological anxiety. Some trainers even used additional digital tools such as virtual sandboxes, allowing participants to simulate without the risk of damaging the original data. This reinforces the finding that the trainer's ability to facilitate safe and supportive learning is crucial to the success of village apparatus learning.

Delivering Relevant and Contextual Material

The trainers in this study were found to play a crucial role in connecting policy theory with the contextual realities of village governance. For example, in a session on fiscal transparency, the trainer adapted national policy guidelines into case-based learning using local examples.

“We will not just read the regulation; we’ll see how this applies to our village’s situation,” said one trainer while displaying a digital dashboard of village budget allocations.

This approach was highly valued by participants, especially those from remote areas where administrative practices differ. A participant from Kulon Progo reflected,

“When the trainer shows how to apply the rule in our village’s context, it becomes easier to understand. We can see our own data and work on it directly.”

This finding aligns with the contextual learning framework proposed by Stoykova (2021) and supported by Setyowati et al. (2023), which emphasise that learning relevance increases when abstract content is linked to lived experiences. Technology further strengthened this connection by allowing trainers to visualise local datasets, simulate reporting workflows, and use digital storytelling to illustrate best practices.

Motivators and Inspirers in Professional Transformation

Beyond technical knowledge, trainers emerged as motivators and inspirers who encouraged participants to adopt innovative mindsets. Many participants described the trainer as a “spark” who reignited their enthusiasm for public service.

One village secretary noted,

“Our trainer didn’t just teach us how to use an app; he inspired us to serve the community better. I began to think of how to make our village information system more accessible to citizens.”

The motivational role was evident in the way trainers used technology to visualise progress and celebrate achievements. For instance, digital badges and real-time dashboards displayed during training created a sense of competition and pride among participants.

This aligns with the concept of transformational leadership described by Yusuf et al. (2022), where facilitators shape participants’ intrinsic motivation and vision for change. In this study, technology amplified that transformation by providing tangible indicators of growth and reinforcing a culture of innovation.

Post-Training Implementation Support

Findings revealed that trainers maintained engagement with participants even after the formal training sessions ended. Through WhatsApp groups, Telegram channels, and periodic online mentoring sessions, trainers continued to provide feedback and troubleshoot implementation challenges.

As one trainer explained,

“We don’t stop at the certificate. We keep in touch because real learning happens when they return to the village.”

This form of continuous digital mentoring helped bridge the “knowledge-to-practice” gap frequently reported in government training programmes (Nguyen et al., 2024). For participants, these post-training interactions provided emotional and technical support. A participant from Gunungkidul said,

“When I got confused about uploading the quarterly report, I just sent a screenshot to the group. The trainer replied quickly with step-by-step guidance.”

This digital mentoring model represents a sustainable approach to professional development, ensuring that learning outcomes are embedded into daily administrative practice.

Trainers as Policy Bridges

Trainers also functioned as policy translators, mediating between bureaucratic language and local operational understanding. They simplified complex regulatory terms and guided officials on how to comply while remaining adaptive to local conditions. During an observed session, a trainer explained,

“Think of this regulation not as a burden but as a guideline to help us justify our actions transparently.”

This communicative mediation role is consistent with Cherian and Natarajamurthy (2025), who emphasise that policy success depends on its translation at the local level. Through the use of e-learning platforms and policy simulation tools, trainers were able to contextualise national frameworks in more digestible, visual formats.

Agents of Change in Village Governance

The findings also reveal that trainers play the role of change agents, promoting new norms of transparency, accountability, and innovation. In one instance, after a digital governance training, participants collectively initiated the adoption of an e-budgeting system previously ignored by local offices. A participant expressed,

“We used to do everything manually, but now we are moving to digital records. It’s faster, cleaner, and everyone can see the updates.”

This reflects Husadani et al. (2021), who found that digital transformation in village administration improves efficiency and integrity. Trainers, by modelling openness to technology, indirectly shaped the organisational culture of participating villages.

Socio-Cultural Interpretations of Trainer Roles

The data also show that the way participants perceive trainers is shaped by socio-cultural backgrounds. Officials from more hierarchical regions tended to treat trainers as authoritative experts, while those from egalitarian cultures preferred collaborative interaction.

"In our district, we respect the trainer like a superior," said one participant from Bantul. *"But here, they invite us to discuss, so I feel more comfortable sharing my opinion,"* another from Sleman added.

This dual perception highlights the cultural negotiation embedded within adult learning contexts, as emphasised by Prarikeslan et al. (2023). Technology, interestingly, reduced some of these hierarchical barriers: online communication platforms allowed freer exchanges and flattened traditional authority boundaries.

Technology as a Catalyst for the Formation of New Professional Identities

The integration of technology into training has proven to be an important factor in the formation of new professional identities for village officials. Many participants reported that successfully managing applications, producing digital reports, or reading data dashboards made them feel more competent and on par with officials in urban areas.

One trainer explained:

'Technology makes them proud. When they see village data visualised, they feel capable of working like professionals in the city.'

For many participants, mastery of technology is not just a technical skill, but a symbol of professional status, proof of self-competence, and a form of social legitimacy in the eyes of the village community.

DISCUSSION

From Knowledge Transfer to Co-Constructive Learning

The results of the study show that village apparatus training is undergoing a fundamental shift in pedagogical orientation. Whereas previously training was dominated by a one-way lecture format, the learning process has now evolved into a dialogical forum that enables the co-construction of knowledge between trainers and participants. Village apparatus are no longer considered passive recipients of information, but rather actors who bring with them a wealth of field knowledge and administrative experience. In this interaction, trainers function as facilitators who spark discussion, ask provocative questions, and guide participants to connect their practical experiences with the training material (Candra et al., 2025).

This transformation is further strengthened through the use of digital simulations that allow participants to practise village administration systems such as Siskeudes in a safe environment. These simulations are not only technical tools but also pedagogical bridges that open up space for reflection, experimentation, and error-based learning. Participants can try out various system features, evaluate the results, and discuss the difficulties they encounter without worrying about causing administrative impacts. Thus, this co-constructive process not only improves technical skills but also strengthens critical thinking and problem-solving capacities (Wittich W, 2024).

Reinforces evidence that apparatus learning will be more effective if it uses a dialogic facilitation model combined with digital simulation. This model can be adopted as a foundation in the development of government training curricula at the village and sub-district levels, especially in areas with digital literacy gaps.

Contextualisation and Local Relevance in Learning

The importance of contextualisation became increasingly clear in this study. Training effectiveness increased significantly when the material was presented in the context of real village issues. Trainers who understood local conditions whether demographic structure, social dynamics, fiscal conditions, or specific issues such as land conflicts or data collection on poor families were able to create relevant and easy-to-understand learning experiences.

Technology substantially supports this process. Dashboards displaying village data, interactive maps, or budget change graphs allow participants to see first-hand how national policies interact with local situations. Participants no longer receive policies in the abstract, but see their relation to the dynamics of their villages: for example, how priorities for the use of village funds change when social vulnerability indicators increase. This process creates a reciprocal relationship between data and participants' understanding, so that every discussion feels concrete and rooted in field needs (Hermawan et al., 2023).

Contextualisation also includes cultural aspects. The use of local terms, examples from daily life, or communication patterns that match the social character of rural communities accelerates the acceptance of the material. Participants feel valued because their experiences are the starting point for explanations. Research contribution producing a data- and locally-based training framework that can serve as a guideline for government training institutions to ensure that the material does not stop at regulations but is actually implemented because it is relevant to the participants' conditions (Wulayalin & Suprihatiningrum, 2024).

Motivation, Digital Feedback, and Transformational Change

In addition to knowledge transfer, this training successfully touched on the affective dimension of the participants. When trainers provided motivational reinforcement—whether through inspirational stories, recognition of participants' progress, or digital rewards in the form of badges or rankings—participants felt an emotional drive to continue learning. Digital feedback provided visual evidence that they were developing. In some cases, participants even competed healthily to improve their rankings, demonstrating that gamification has a positive effect on adult learning (Wanga et al., 2014).

This motivation is also closely related to the formation of a new professional identity. Many village officials previously felt inferior when dealing with digital devices. However, after mastering the application, participating in technical discussions, and receiving recognition from trainers and peers, they began to see themselves as part of a modern bureaucracy. This change in identity cannot be underestimated, as professional identity is the foundation for performance-based bureaucratic reform, and also it clarifies that civil servant training must include motivational components and progress visualisation as core strategies. This is important for the development of training models that not only teach skills but also build internal motivation to continue innovating (Today, 2025).

Continuous Learning Ecosystems

One of the most significant findings was the continuity of learning after formal training had ended. Trainers did not sever ties, but continued to serve as virtual mentors who provided guidance when administrative issues arose. WhatsApp and Telegram groups became lively discussion forums: participants asked each other questions, shared documents, discussed new policies, and even troubleshooted specific software issues. These digital spaces function as informal learning communities that foster a sense of solidarity and collective competence. When one village finds a solution to a problem with fund disbursement or data input, other villages can replicate it. The learning process becomes more fluid and adaptive, far beyond

the confines of the classroom. Trainers act as guardians of the community's rhythm: ensuring that the flow of knowledge continues, reminding participants of regulatory changes, and providing moral support when obstacles arise. Research contribution providing an empirical basis for the development of a long-term learning ecosystem model, in which training is not seen as a temporary programme, but as a process embedded in the daily life of village bureaucracy (Potchana, 1997).

Trainers as Policy Mediators in Digital Governance

In the context of village administration, which often deals with complex regulations, trainers play a strategic role as policy mediators. They do not merely explain the content of regulations, but interpret and translate policy language into operational steps that are easier to understand. Technology makes this mediation process even more effective. Digital infographics, short videos, and interactive databases can simplify complex concepts such as budget accountability flows or social security mechanisms. Participants gain a visual overview of their administrative obligations, thereby reducing the potential for errors (Education, 2024).

Furthermore, policy mediation is dialogical in nature. Participants can ask questions, request clarification on specific articles, and even simulate the impact of policies on village conditions. This process creates two-way communication, which is rare in conventional bureaucracy, and also proposing a trainer model as a technology-based policy bridge, which is urgently needed to reform the relationship between the central government and villages, especially in the era of government digitalisation (Katrunida et al., 2018).

Technology and Organisational Culture Transformation

Technology integration not only results in technical changes, but also triggers organisational cultural transformation. When trainers consistently use digital platforms in training administration, participants see this practice as a new work standard. They then imitate this behaviour in their office routines, for example by starting to store documents in cloud storage, holding online meetings, and using public complaint applications. Organisational cultural transformation occurs because of a change in perception that technology is not just a tool, but a symbol of professionalism. Village officials feel more confident when they can show the village dashboard to the community or when they are able to quickly operate financial applications. This change has broad implications for transparency, efficiency, and accountability, which are the main pillars of modern bureaucracy. Contribution of the research provides evidence that technology-based training can be a driver of bureaucratic reform through changes in work culture, not just an improvement in skills (Toha et al., 2020).

Socio-Cultural Mediation and Technological Neutralisation of Hierarchy

Training for village officials is generally influenced by a hierarchical culture that makes participants reluctant to express their opinions. However, this study shows that technology can reduce this hierarchical pressure. Features such as anonymous chat, digital whiteboard collaboration, and group discussions allow participants to interact more equally. They can express their opinions without feeling direct social pressure. The most noticeable change was seen in groups of women and young officials. They became more vocal, more courageous in asking questions, and more frequently involved in discussions when the learning process was facilitated through digital platforms. This shows that technology not only facilitates learning,

but also opens up broader social inclusion. Contribution of the study is providing a technology-based inclusive training model that is relevant to rural areas with hierarchical social structures (Madan et al., 2024).

Reconstructing Professional Identity through Technology

This study also found that technology-based training helps reshape the professional identity of village officials. Through routine practices such as creating digital portfolios, operating performance dashboards, and presenting data online, participants began to perceive themselves as part of a modern, responsive, data-driven digital bureaucracy. This identity is reinforced by a digital community that remains active after the training is complete. When participants shared their implementation successes or digital innovations, they received social recognition from their peers and trainers. This recognition became an important part of the professional identity formation process. Contribution of the research introducing a technology-based professional identity reconstruction framework, which can be used as a strategy to strengthen the long-term competence and confidence of village officials (Einali et al., 2021).

CONCLUSION

This study concludes that the optimisation of trainers' roles in enhancing the professionalism of government apparatus particularly at the village level requires a holistic approach that integrates pedagogical expertise, socio-cultural sensitivity, and the effective use of educational technology. The findings reveal that trainers are not merely conveyors of knowledge but function as multidimensional actors: learning facilitators, contextual material designers, motivators, post-training mentors, policy mediators, and agents of change. These six interrelated roles, when supported by technology-based learning environments, create a dynamic ecosystem that enables continuous professional growth, participatory engagement, and digital adaptability among public officials. Empirically, the study demonstrates that technology serves as both a medium and a catalyst in transforming training practices. Digital tools ranging from e-learning platforms to virtual mentoring systems have enhanced access, interactivity, and sustainability of learning. However, technological adoption only yields meaningful outcomes when aligned with adult learning principles (andragogy) and contextualised to local governance realities. Trainers who are digitally literate and pedagogically agile are better positioned to translate policy into practice and to facilitate experiential, problem-based learning processes that resonate with the officials' daily administrative challenges.

Theoretically, these findings reinforce the intersection between *andragogy*, *transformational leadership*, and *educational technology*. They affirm that professional learning in the public sector must go beyond the cognitive dimension to encompass social and affective aspects of transformation. Trainers thus emerge as "learning leaders" whose influence extends beyond training rooms into organisational culture, shaping values of transparency, accountability, and innovation. This study extends the discourse of adult education and governance by linking technology integration with cultural adaptation a critical nexus for developing responsive and resilient bureaucracies in the digital era. From a policy perspective, the results underscore the need for institutional investment in digital infrastructure, capacity-building for trainers, and the development of blended learning models tailored to the diverse needs of village officials. Training programmes should integrate modules on digital governance, data ethics, and adaptive leadership to prepare apparatuses

for the complexities of technology-mediated public service. Furthermore, sustainable mentoring networks supported by online communities of practice should be established to ensure the continuity of learning and peer collaboration beyond formal training sessions.

The study also highlights that professionalisation is not a singular event but a continuous social process influenced by local culture, organisational support, and technological access. The effective use of educational technology, therefore, must be accompanied by inclusive design, participatory learning culture, and reflective evaluation. Trainers, as the central nodes of this ecosystem, are called to adopt hybrid competencies that combine empathy, technological fluency, and critical facilitation skills. In conclusion, optimising the role of trainers through educational technology represents a strategic pathway toward strengthening the professionalism and governance capacity of village officials. As Indonesia continues to advance digital transformation in its public sector, training institutions must reconceptualise their pedagogical approaches to create learning environments that are flexible, contextually grounded, and human-centred. Future research could further examine how artificial intelligence, adaptive learning analytics, and immersive technologies (e.g., virtual reality simulations) can enrich the professional learning experiences of government officials. Through this integrated perspective, training becomes not only a mechanism for skill enhancement but also a vehicle for fostering democratic governance, innovation, and sustainable community development.

REFERENCES

- Asriandy, I. (2016). Strategi Pengembangan Obyek Wisata Air Terjun Bissapu di Kabupaten Bataeng. *Universitas Hasanudin*, 82. <https://core.ac.uk/download/pdf/77625485.pdf>
- Candra, K. I., Hermawan, Y., Trisanti, Suyantri, E., & Rudiana. (2025). Tourism-Based Community Empowerment of People with Disabilities. *Jurnal Penelitian Pendidikan IPA*, 11(1), 163–175. <https://doi.org/10.29303/jppipa.v11i1.9839>
- Candra, K. I., Leonia, R. A., & Suyantri, E. (2024). *The Effectiveness of Educational Games in Understanding Learning English for Kindergarten Students Bunga Bangsa School , Indonesia*. 9, 1916–1922.
- Chambers, R. (1995). Poverty and livelihoods: Whose reality counts? *Environment & Urbanization*, 7(1), 173–204. <https://doi.org/10.1177/095624789500700106>
- Creswell, J. W. (1989). *Qualitative Inquiry Research*. 1–12.
- Education, B. M. C. M. (2024). Mapping the use of artificial intelligence in medical education: a systematic review. *BMC Medical Education*, 24, 1675. <https://doi.org/10.1186/s12909-024-05278-4>
- Einalli, J., Chreraghi, M., & Azarakhsh, S. (2021). The Role of Transportation in Promoting Economic Competitiveness of Rural Tourism Destinations (Case Study: Tourism Target Villages of Kohgiluyeh and. ... *Planning and Development*, 10(39), 51–77. http://journals.umz.ac.ir/article_3617_dff15249e175fee828e887417c7d226b.pdf
- Fatayati, S. U., Gani, A. J. A., & Hanafi, I. (2020). Analisis pengaruh remunerasi terhadap kinerja pegawai pada tenaga kependidikan tetap non PNS di Lingkungan Kantor Pusat Universitas Brawijaya. *Jurnal Ilmiah Administrasi Publik*, 6(3), 387–394. <https://doi.org/10.21776/ub.jiap.2020.006.03.7>
- Hermawan, Y., Sujarwo, S., & Suryono, Y. (2023). Learning From Goa Pindul: Community Empowerment through Sustainable Tourism Villages in Indonesia. *Qualitative Report*, 28(5), 1365–1383. <https://doi.org/10.46743/2160-3715/2023.5865>
- Imsiyah, N., Hendrawijaya, A. T., & Salsabila, V. A. (2024). *Keberdayaan Manusia Silver Pada*

- Program Rehabilitasi Sosial Di Unit Pelaksana Teknis Dinas (UPTD) Liponsos Keputih Surabaya*. 19(2), 90–100. <https://doi.org/10.17977/um041v19i12024p90-100>
- Katrunida, D., Sasongko, I., & Soewarni, I. (2018). *Strategi Pengembangan Sentra Pedagang Kaki Lima Dan Taman Bermain Sebagai Ruang Publik Menurut Persepsi Stakeholder di Sepanjang Koridor Jalan Kandilo Bahari Kecamatan Tanah Grogot*. 1–14. https://core.ac.uk/display/198110387?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1
- Londoño, J. (2008). Handbook of qualitative research. In *Revista Facultad Nacional de Salud Pública* (Vol. 24, Issue 1, p. 1). <https://doi.org/10.17533/udea.rfnsp.289>
- Madan, S., Kumar, T., & Bhagat, A. (2024). Inclusive Hiring through Technologies: A Recruitment Platform for Individuals with Intellectual Disabilities. *Procedia CIRP*, 128, 31–36. <https://doi.org/10.1016/j.procir.2024.05.091>
- Maneenetr, T., & Tran, T. H. (2014). Developing cultural tourism through local festivals a case study of the Naga fireball festival, Nong Khai Province, Thailand. *Mediterranean Journal of Social Sciences*, 5(23), 734–741. <https://doi.org/10.5901/mjss.2014.v5n23p734>
- Nguyen, K., Nguyen, N., Cao, P., Vo, L., & Kieu, T. (2024). Understanding AI-Based Content Recommendation Experience Perceptions on Short-Video Platforms and Enhancing Customer Engagement : The Mediation of Empathy and Self- Congruence Understanding AI-Based Content Recommendation Experience Perceptions on Short-V. *International Journal of Human-Computer Interaction*, 0(0), 1–17. <https://doi.org/10.1080/10447318.2024.2440633>
- Nurdiansyah, S., Asmaningrum, N., Purwandari, R., Ardiana, A., Rosyidi, K., & Nur, M. (2022). The Health Literacy Level among Adult Patients in Rural and Urban Public Health Centers of Pandalungan Region: A Dual-Center Comparative Study. *Jurnal Kesehatan Dr. Soebandi*, 10(1), 17–25. <http://journal.universitasdrsoebandi.ac.id/>
- Nurhayati, N., Wahjuni DJ, E., & Harsono, J. (2020). Strategi Pemerintah Desa dalam pengelolaan Wisata Lokal. *Jurnal Administrasi Pemerintahan Desa*, 1(1), 61–69. <https://doi.org/10.32669/villages.v1i1.13>
- Odagiri, M., Cronin, A. A., Thomas, A., Kurniawan, M. A., Zainal, M., Setiabudi, W., Gnilo, M. E., Badloe, C., Virgiyanti, T. D., Nurali, I. A., Wahanudin, L., Mardikanto, A., & Pronyk, P. (2020). Achieving the Sustainable Development Goals for water and sanitation in Indonesia – Results from a five-year (2013–2017) large-scale effectiveness evaluation. *International Journal of Hygiene and Environmental Health*, 230, 113584. <https://doi.org/10.1016/j.ijheh.2020.113584>
- Potchana, S. (1997). *Community Based Tourism Handbook: REST Project*. https://drive.google.com/file/d/1qs57AXYNAPp8FJjTUG6-2X7Cjwd_PCyG/view
- Prakoso, A. A., Pradipto, E., Roychansyah, M. S., & Nugraha, B. S. (2020). Community-based tourism: concepts, opportunities and challenges. *Journal of Sustainable Tourism and Entrepreneurship*, 2(2), 95-107. <https://doi.org/10.35912/joste.v2i2.563>
- Rosilawati, Y., Amalia, D. A., & Ishak, A. (2021). Pemberdayaan Masyarakat : Kampung Tunagrahita Menuju Kampung Mandiri Desa Karangpatihan, Ponorogo, Indonesia. *Interaksi: Jurnal Ilmu Komunikasi*, 10(2), 127–137. <https://doi.org/10.14710/interaksi.10.2.127-137>
- Sukmadinata. (2005). *Metodologi penelitian*. 64.
- Today, N. E. (2025). Utilising artificial intelligence in developing education of health sciences. *Nurse Education Today*, 137, 107951. <https://doi.org/10.1016/j.nedt.2025.107951>
- Toha, M., Eliyusnadi, & Hasan, A. (2020). Pengembangan Desa Wisata dan Pemberdayaan

- Masyarakat Berbasis Potensi Lokal Pada Kecamatan Kerman (Studi Kasus Pada *Jurnal Administrasi Nusantara Maha*, 2(23), 29–33.
<https://lppmstianusa.com/ejurnal/index.php/janmaha/article/view/378>
- Trapsilowati, W., Mardihusodo, S. J., Prabandari, Y. S., & Mardikanto, T. (2015). Pengembangan Metode Pemberdayaan Masyarakat Dalam Pengendalian Vektor Demam Berdarah Dengue Di Kota Semarang Provinsi Jawa Tengah (Developing Community Empowerment for Dengue Hemorrhagic Fever Vector Control in Semarang City, Central Java Province). *Buletin Penelitian Sistem Kesehatan*, 18(1), 95–103.
<https://doi.org/10.22435/hsr.v18i1.4275.95-103>
- Wanga, J. O., Hayombe, P. O., Agong, S. G., & Mossberg, L. (2014). Stakeholder Involvement in Tourism Destination Development: A Case of Dunga Beach and Wetland, Kisumu County, Kenya. *Journal of Arts and Humanities*, 3(8), 13–27.
- Wittich W, D. (2024). Development of core sets for deafblindness: an international expert survey on functioning and disability of individuals living with deafblindness using the International Classification of Functioning, Disability, and Health. *European Journal of Physical and Rehabilitation Medicine*, 60(2), 382–390. <https://doi.org/10.23736/S1973-9087.24.08188-7>
- Wulayalin, K. A., & Suprihatiningrum, J. (2024). Creating Accessible Chemistry Content for Students with Disabilities: Findings from Schools Providing Inclusive Education in Indonesia. *Jurnal Penelitian Pendidikan IPA*, 10(5), 2199–2210.
<https://doi.org/10.29303/jppipa.v10i5.6755>
- Yenduri, G., Vemireddy, V. R., & Sharma, A. (2022). From assistive technologies to metaverse: Technologies in inclusive higher education for students with specific learning difficulties—A review. *IEEE Access*, 10, 82167–82183.
<https://doi.org/10.1109/ACCESS.2022.3185582>