



Journal on Smart Learning Technologies

Ginola, D., & Amarulloh, A. (2025). Merit and Demerit of Generative Text AI for Indonesian Teachers' Administration Load: Primary Teachers' Perspective. *Journal on Smart Learning Technologies*, 1 (1), 39-56.

DOI:

The online version of this article can be found at our journal page:

Published by:

Educational Technology Department, Universitas Negeri Surabaya, Indonesia

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Merit and Demerit of Generative Text AI for Indonesian Teachers' Administration Load: Primary Teachers' Perspective

David Ginola^{1*}, Adhitya Amarulloh²

¹ Faculty of Education, Monash University, Melbourne, Australia, 3800

² Educational Technology, PSDKU Magetan, Universitas Negeri Surabaya, Surabaya, Indonesia, 63392

Corresponding author: David Ginola, Email: dginoooo2@student.monash.edu¹

Abstract

In the Indonesian educational system, teachers function as both educators and administrators; managing a large number of occupational processes critical for the functioning of the school, as well as meeting policy compliance mandates. This situation is particularly pronounced in public and rural schools which tend to be understaffed and under resourced. This leads to heightened levels of teacher stress, burnout, and poor quality of education. The recent emergence of generative text Artificial Intelligence (AI) provides new opportunities for alleviating the administrative burdens of teachers. Modern AI writing tools can perform report writing, lesson outline creation, and data entry due to their ability to human-equivalent compose. Such tools are likely to increase teachers' productivity, reduce burnout, and improve the amount of time geared towards teaching interacting with students rather than monotonous work. Furthermore, the ability of AI to personalize instruction to vernaculars and the local curriculum strengthens its case for the diverse educational context of Indonesia. Research reveals that trust issues with AI content generators, cultural relevance of the material, concerns regarding data privacy, security, inequitable digital competences among staff members, as well as infrastructural gaps create formidable challenges towards effective AI integration. Additionally, the challenge concerning the potential impact of excessive dependence on AI systems on the professional evaluative skills of teachers also needs attention. This study provides an Indonesian perspective to inform diverse stakeholders policymakers, educators, and technology designers regarding the literature and case studies examining the advantages and disadvantages of generative text AI on the administrative burden of Indonesian teachers. The study advocates for the use of AI technologies that are secure, culturally relevant, inclusive, as well as sensitive and accessible to empower teachers for improved functionality beyond mere administration, to enhance the quality of education in Indonesia.

Keywords: AI Implementation Challenges, Educational Technology, Generative Text AI, Teachers' Administrative Load

Article History:

Received
June 2025

Review
June 2025

Accepted
July 2025

Published
July 2025

INTRODUCTION

In the Indonesian educational framework, the function of a teacher is dualistic being an educator as well as a management-based office worker. In addition to foundational pedagogical duties and student engagement, educators must attend to a substantial scope of routine administrative workload that is debilitating. This workload involves a plethora of tasks critical for the sustenance of the school's operations and adherence to relevant legal and policy frameworks in the education sphere (Celik et al., 2022). One core administrative task centers on lesson preparation. It is expected that teachers create and submit bespoke lesson documents in simulation of the national curriculum and the education benchmarks from the Ministry of Education and Culture (Sefriani et al., 2021). These educational plans require documentation and planning on bespoke cycles, with the need for adaptability due to evolving curricula or emerging needs of the students.

In addition, educators are tasked with the requirement of managing and recording the attendance of learners on a daily basis. This responsibility includes keeping precise digital logs of attendance as well as monitoring absence patterns and addressing them in compliance with institutional regulations. For all educational institutions, attendance counts serve a dual purpose: they are needed for reporting administratively as well as for monitoring learners' participation and engagement in school activities (Frye, 2022). Another important element of the administrative burden is the assessment and grading. Every teacher is expected to assess students through various, including but not limited to, assignments, quizzes, tests and then to document, analyze, and compute the results obtained. It is common for educators to take a significant amount of time to complete the grading especially in large classes due to the need to pay meticulous attention to detail to ensure every student is equitably treated in the grading process.

Educators must construct periodic reports detailing the development of individual learners, lessons taught in class, and other pertinent educational metrics. These reports are prepared for school principals and education administrators at the local, provincial, and national levels for monitoring, evaluation, and policy formulation. Keeping comprehensive student records, including essential demographic information, the educational timeline, and documented behavior patterns, are also classified as the administrative workload that is expected from the teachers. These administrative duties are compounded by a layering of compliance obligations defined by several different bureaucratic boundaries. Educators are bound by policies from the construction that come from the Ministry of Education and Culture, regional education offices, and their own schools. This also includes documenting compliance with the national education framework, attendance in Teacher In-Service training record keeping, and submission of reports on non-academic activities and community service.

Teachers' administrative responsibilities consume a significant portion of their time, often intruding into preparation and personal hours. This shift in focus from pedagogy to bureaucracy limits opportunities for innovation, individualized instruction, and professional growth. Studies within Indonesia's education ecosystem indicate that excessive administrative workload contributes to teacher stress, burnout, low job satisfaction, and higher turnover, which ultimately compromises educational quality (Boitshwarelo et al., 2017). These issues are especially pronounced in public and rural schools, where limited access to support staff and technological tools exacerbates the imbalance between workload and resources. Understanding this context is essential to designing effective interventions, including the adoption of generative AI, that aim to restore instructional focus and improve equity.

Generative Artificial Intelligence (AI), particularly text-based tools, offers promising solutions to these challenges. In the Indonesian context, where teachers often face bureaucratic demands alongside their teaching duties, such technologies can automate routine tasks and reclaim time for meaningful student engagement and professional development (Ehren & Swanborn, 2012). By assisting with report generation, document formatting, and data input, AI can help reduce stress and enhance job satisfaction—two critical factors in mitigating teacher burnout. These tools may also be particularly impactful in under-resourced areas lacking administrative and training support, helping to bridge capacity gaps and improve system-wide productivity.

In spite of the benefits mentioned, the use generative text AIs in teaching gives room for concern for issues that are particularly complicated and demand attention. One critical concern is whether texts produced by AI are reliable and accurate. For example, although AI can generate texts in record time, its outputs might greatly fail to meet Indonesia's educational standards, sociocultural norms, or the Indonesia education framework's curricular benchmarks. If they contain, for example, inapplicable errors, inaccuracies, or distractions, automated AIs could compromise educational standards. Additionally, AI could end up overestimating time savings when in fact trying to offset stringent oversight. Moreover, data privacy and security raises significant concern (Hu, 2023). Often, the employment of AI systems necessitates the processing of confidential data about students and teachers. The consideration of teachers' willingness and ability to adopt and use generative text AI tools effectively is equally important. Differences in digital literacy, Internet access, and familiarity with new technologies may hinder equitable access to AI (Luthfia et al., 2021). Without proper preparation and adequate assistance, teachers are likely to face challenges incorporating these tools into their routines, which could lead to a number of frustrations ranging from some benefit denial to outright resistance. Furthermore, there is ongoing discussion regarding the use of generative AI and its potential impact on teachers' professional judgment, creativity, and autonomy regarding the development of lesson plans and other administrative tasks. Striking a balance between the use of AI as a tool for assistance while keeping in mind the educational insights and intelligence that makes education effective is critical yet challenging.

Exploring the impact of generative text AI on the administrative burden of Indonesian teachers is timely and important given the many facets to consider. Such research can assist in understanding how AI technologies may be best assimilated into the educational framework with an aim to foster supporting roles for teachers while avoiding possible drawbacks. In the Indonesian context, where teachers are often overwhelmed with non-teaching tasks due to policies such as the Dapodik (Data Pokok Pendidikan) system and complex reporting obligations tied to school accreditation and teacher certification, the integration of AI tools must respond to real administrative pain points. Furthermore, cultural challenges such as varying levels of digital literacy, hierarchical decision-making in schools, and concerns about data privacy highlight the need for locally informed solutions that go beyond technological efficiency. The conclusions drawn from the study will be beneficial for a wide spectrum of education stakeholders including teachers, school leaders, and even policymakers, as well as curriculum developers and technology providers in helping them make targeted decisions regarding the use and implementation of AI. A systematic investigation will, in the long run, strengthen the educational mission in Indonesia by ensuring that text-generating AI technologies are implemented in ways that enhance and not diminish educational efforts. It will help in formulating guidelines and standards that will ensure the responsible, efficient, and context-sensitive application of AI technologies, resulting in the empowerment of teachers, diminished administrative burdens, and enriched student learning.

This article aims to explore both the advantages and disadvantages of using generative text Artificial Intelligence (AI) in responding to the administrative burden encountered by Indonesian teachers. In light of the growing interest in AI technologies within the education sector, this research intends to examine the role of generative text AI in assisting as a virtual aide through the automation of monotonous and menial administrative tasks. Such automation will greatly augment teachers' productivity by freeing up considerable time and energy which can be devoted to instruction, engaging with students, and pursuing professional development activities. Nevertheless, this article attempts to acknowledge the need to examine the concerns, constraints, and risks involved with the use of AI technology in the context of education in Indonesia. The study thus intends to also examine beyond the functional abilities of generative text AI tools to include the technological, pedagogical, ethical, and sociocultural factors that affect their use and acceptance in the Indonesian context. This includes examining issues pertaining to the accuracy and cultural relevance of the content, teacher's digital competence, data privacy, and infrastructure limitations like internet connectivity and availability of devices.

To attain these goals, the article will conduct a detailed assessment of scholarly literature and governmental documents alongside practical case studies reflecting the application and impact of generative text AI in the educational field. The goal of the text is to analyze using a holistic approach by combining theory and data to explain how AI technologies are being utilized, what advantages they offer, as well as the challenges faced by educators within the context of Indonesian schools. This article aims to address a variety of clerical tasks associated with teaching, including but not limited to plan lessons, log attendance, grade, report, document, and many more. Moreover, this article aims to investigate the current capabilities of generative AI systems with regards to producing, summarizing, and creating texts and templates, evaluating their usefulness within the Indonesian context.

Additionally, the article other examines the socio-cultural factors like linguistic diversity, educational policies, and regional sentiments toward technology that as an impediment to teachers' AI adapted tools use. In addition to digital device and internet disparities, urban-rural divides also critical frame the limited feasibility and scalability of AI technology integration. Informed and strategically targeted recommendations for teachers, school leaders, policymakers, curriculum developers, and even AI technology developers are yet to be formulated. These aims will help shift the focus from mere compliance in policy frameworks to actively empowering educators through the development of rigorous, effective, and sustainable integration strategies that enhance their professionalism and improve the educational landscape of Indonesia.

LITERATURE REVIEW

Artificial Intelligence (AI) in Schools

The dual burden of teaching and managing administrative tasks has been widely reported as a major challenge in global education systems. Research, including international surveys such as OECD's Teaching and Learning International Survey (TALIS), consistently shows that a significant portion of teachers' working hours is spent on non-instructional duties such as documentation, student supervision, attendance tracking, and policy compliance (Hendrycks, 2021). These duties reduce the time teachers can allocate to lesson planning, individualized student support, and professional development. Numerous studies have shown that such administrative overload contributes to higher levels of occupational stress, burnout, and attrition—ultimately diminishing the quality of instruction and student outcomes.

In Indonesia, the problem is further complicated by multi-layered governance structures involving the Ministry of Education, regional education offices, and school-level authorities—each imposing different reporting requirements (Chen et al., 2022). Teachers, especially in public and rural schools, often lack sufficient technological infrastructure or clerical support, making them responsible for all administrative documentation. Empirical studies indicate that teachers may spend up to 30–40% of their time on tasks like filling attendance systems, submitting reports, and meeting compliance demands. In remote schools without digital recordkeeping systems or administrative personnel, this

burden is even more pronounced, deepening inequity and reducing opportunities for instructional focus.

Unlike traditional education technologies such as school management systems, which are typically structured around static data entry, reporting, and scheduling functions, generative AI tools offer dynamic, language-based support that can simulate human-like writing and automate content creation. While school management systems require users to manually input structured data into pre-set forms, generative AI can compose narratives, draft reports, summarize student reflections, and create customized lesson plans based on prompts. This functional difference makes generative AI uniquely positioned to reduce the cognitive and time burden of repetitive writing tasks. For Indonesian educators, especially those in under-resourced areas, this could mean less time spent on redundant paperwork and more time available for instructional design and student interaction. Thus, integrating generative AI represents not just another administrative tool, but a fundamentally different approach that addresses the core of the documentation overload problem.

AI for Administration Works

Developing Innovative Strategies for Educations Systems Development has been supported by Artificial Intelligence (AI) technologies in recent years due to the recognition of administrative burdens that educators face. Numerous studies have tried to explore the effectiveness of AI implementation in streamlining repetitive administrative tasks, and the results have been largely positive. Educators are frequently the targets of automated systems that are designed for administrative tasks. Examples include AI-based attendance systems that use facial recognition, attendance and performance marking by machine learning systems, algorithm-based scheduling and allocation systems, as well as report and document generation systems based on natural language production technologies (Jimenez, 2023). Such automation aims to assist teachers and school administrators in reducing the workload manual tasks that require hands-on work with documents, thus enabling them to focus on teaching and interacting with students.

The majority of studies suggest that compliance to policies AI tools enhances effectiveness and precision within an educational institution's administrative processes when systemically applied and well thought out. A good example is the automated grading systems which not only save a lot of time for teachers, but also offer objective peer review. In the same manner, teachers can produce standard lesson and report templates with the aid of AI, thereby lessening the burden of repetitive, menial document drafting. In contrast, ne of the overriding issues AI in educational management is its adaptability to different teaching and learning environments which includes language, curriculum, and socio-cultural considerations (Roser, 2023). The most pressing issue is because many AI systems are based on western model education, these need to be adapted or customized for use in countries like Indonesia.

An equally important topic of discussion is the ethics of data privacy and the consideration of how AI reaches its decisions. Trust and acceptance of AI technologies by educators tends to diverge with their familiarity, and depends greatly on the reliability of the provided AI outputs, alongside the educator's perception of professional autonomy. In addition, the use of AI in education presupposes a

developed internet infrastructure together with a digital device, which is not uniformly available in many places. These sociotechnical factors emphasize the need to adapt AI technologies to the specific conditions and realities of the education system and workforce. All in all, the promises of AI are great in regard to alleviating teachers' administrative burdens, but in integrating these technologies, special attention to technical, ethical, and sociocultural factors is needed, especially in developing countries like Indonesia.

Application of Generative Text AI Tools in Education and Administration

Generative AI tools applications are on the rise for educational and administrative purposes, owing to the potential need for producing well-structured and precise written content. The use of AI in education encompasses a variety of functions, serving to ease the workload of educators and administrators. One critical application is AI assistance in composing lesson plans, from which educators may retrieve partial or complete lessons in outline or detailed form (Goode & Kim Millie, 2021). Attested users of these tools are able to provide comprehensive reports on a wide range of data, including but not limited to the summarizing student's performance, their attendance records, and even detailing the lessons conducted in the given period. Such tools facilitate automated creation of assessment items and their associated grading rubrics thereby increasing efficiency in academic evaluations.

Generative AI significantly enhances the efficiency of writing tasks such as emails, notifications, and newsletters by ensuring clarity, professionalism, and speed in content creation. Tools like ChatGPT, Google Bard, and other large language models (LLMs) can generate grammatically accurate and stylistically appropriate texts, drawing from their exposure to vast linguistic datasets. In the educational context, these technologies can assist in drafting reminders for parental meetings, composing school-wide announcements, and creating standardized communication templates with minimal human input. Their ability to automate repetitive writing tasks—including FAQs, template-based letters, and internal memos—offers substantial time savings for school staff. Moreover, generative AI can process large documents and produce concise summaries, making it easier to review key information quickly. Similar applications have already been adopted in other sectors for generating meeting minutes, policy briefs, and formal reports, highlighting their versatility and potential value in streamlining administrative workflows in schools.

METHODS

Research Design and Rationale

The focus of this study is on exploring the qualitative aspects shaped by generative text AI through the lens of primary school teachers in Indonesia. Such methods are instrumental in documenting and understanding the lived realities, experiences, and perspectives of participants. In this instance, they foster a nuanced understanding of the impact of generative text Ai on the teaching profession's administrative workload. While the absence of prior research can often be viewed as a hurdle, in this case, it works in favor of the investigation due to the very rich educational landscape of Indonesia.

Participants and Sampling

The sample in this study included eight elementary school teachers from four primary schools situated in three provinces of Indonesia: East Java, Central Java, and West Java. The participants were chosen from these regions to obtain a more representative geographic diversity of teachers from different cultures and levels of infrastructure development. The selection of participants was made through purposeful sampling. Purposeful sampling is a form of non-probabilistic sampling where the subjects are chosen based on specific criteria relevant to the research. Purposeful sampling was used in this study to ensure that the teachers who participated in the research were either users of generative text AI tools or actively engaged in administrative functions where such tools could be relevant. This strategy aids in obtaining rich, in-depth information relevant to the study.

Data Collection Procedures

In light of geographical distribution and participant safety considerations, especially amidst ongoing or lingering restrictions related to the COVID-19 pandemic, data collection was conducted through zoom meetings employing semi-structured interviews. Through semi-structured interviews, participants can be engaged in a conversation of both fixed and free nature, which gives them room to elaborate on their opinions. The interview tool aimed to capture detailed answers regarding the teachers' accounts on generative text AI, as well as their views on its advantages and disadvantages, and the administrative task challenges in responding to them. It was created through document analysis and pilot testing. To guarantee the accuracy and consistency of the instrument, it underwent expert scrutiny and a multi-stage validation process confirming the critiques and suggestions given by the reviewers saturated all aspects of question clarity, relevance, and comprehensiveness. All interview sessions were audio recorded with consent, and subsequently transcribed word-for-word to ensure participant responses maintained their intended meaning. Participant interviews were normally 45 to 60 minutes in duration, which is relatively long enough to discuss the issues in depth, but also brief enough to respect participants' time.

Data Analysis

For the qualitative data, themes analysis technique was selected as a primary data analysis. This method works by identifying within the data and analyzing, reporting, and describe patterns appropriately. NVivo, a qualitative data analysis software, was used to facilitate a systematic thematic analysis of the interview transcripts. After importing the transcripts, the researcher conducted repeated readings to gain familiarity with the content and context. Initial coding involved identifying meaningful segments of text, such as references to "administrative overload," "lack of digital infrastructure," and "teacher stress," which were then grouped under broader preliminary codes like "systemic challenges" and "technology expectations." These codes served as the foundation for theme development. NVivo's capabilities enabled efficient organization, comparison, and retrieval of these coded data. Themes such as "Barriers to AI Adoption" and "Perceived Benefits of Automation" emerged through an iterative

process of clustering related codes and refining them for coherence and distinctiveness. This analytical process ensured that interpretations were grounded in the participants' own words and perspectives, while also allowing for abstraction and synthesis of broader insights. By using NVivo to manage and validate these analytic steps, the study enhanced the reliability and transparency of its findings.

Research Ethics

As with all other qualitative methods, ethical boundaries are to be observed and maintained as was done throughout the entire span of the study. All research participants were briefed concerning the aims of the study and processes involved, and their rights such as voluntary participation and confidentiality. Participants were required to provide informed consent prior to data collection procedures. Contributions were safeguarded, and identifiers were removed to anonymize the data. Submission to the assigned ethics body was done as per the ethical guidelines of the institution, and approval was granted from the relevant ethics board.

RESULTS

Merits of Generative Text AI in Reducing Teachers' Administrative Load

Teachers play a vital role in shaping the future of society by educating and nurturing students. However, in many countries including Indonesia, their professional responsibilities extend beyond classroom instruction. Administrative tasks such as report writing, attendance monitoring, lesson planning, and documentation form a considerable part of their daily workload. These non-teaching duties often consume time and energy that could be better spent on direct student engagement and pedagogical development. With the rise of advanced technologies, particularly generative text Artificial Intelligence (AI), new opportunities have emerged to assist teachers in managing these burdens. Generative text AI uses sophisticated natural language processing to produce human-like text, offering tools that can automate, streamline, and enhance administrative work. This section explores in detail the merits of adopting generative text AI to reduce teachers' administrative load, focusing on automation, time efficiency, accuracy, accessibility, localization, and real-world evidence.

Automation of Repetitive Tasks

At the core of generative text AI's benefits is the capacity to automate repetitive administrative activities. Teachers are regularly tasked with producing a wide range of written materials, many of which involve standardized formats and recurring content. This includes progress and assessment reports, attendance records, lesson plans, and official communications.

Writing detailed student reports, while critical for communicating progress and areas needing improvement, can be highly repetitive and time-intensive. Teachers often replicate similar feedback for different students, adapting phrases and recommendations. Generative text AI systems can take raw input data grades, attendance records, behavior notes and automatically generate coherent, structured reports based on preset templates. This automation minimizes repetitive manual drafting and enables

teachers to focus on customizing reports where necessary, rather than creating them from scratch. For example, an AI might generate a paragraph noting a student's consistent homework completion, freeing the teacher to write personalized comments on individual strengths.

Monitoring and recording attendance is essential but often tedious, especially in larger classes. Many schools still rely on manual or semi-manual processes, which are prone to errors and consume valuable time. Generative AI, integrated with digital attendance systems, can automate the generation of attendance summaries, flag irregularities, and even prepare automated messages for parents in cases of absenteeism. This not only saves time but enhances the accuracy and reliability of records.

Lesson planning involves outlining objectives, activities, materials, and assessments aligned with curriculum standards. While pedagogy and creativity are fundamental, many structural components of lesson plans are routine. AI-powered tools can produce draft lesson plans based on input parameters such as grade level, subject matter, and learning goals. Teachers can then adapt these drafts to their classroom contexts (Prasasti, 2023). This process reduces the cognitive load of planning and accelerates preparation, particularly benefiting novice teachers or those handling multiple subjects. Beyond these, generative AI can automate drafting newsletters, permission slips, meeting agendas, and reports to school management. Standard correspondence that follows predictable patterns can be generated quickly and professionally, reducing teacher workload further. By automating these repetitive tasks, generative text AI minimizes manual labor, decreases error rates, and allows teachers to dedicate more effort to high-value activities like student interaction and instructional design.

Time Efficiency Gains

The time saved through AI-powered automation is one of the most compelling benefits for teachers. Administrative tasks traditionally require significant time commitments, often extending beyond school hours and contributing to teacher fatigue. Generative text AI accelerates these processes by producing drafts, reports, and documents within seconds or minutes tasks that might otherwise take hours. This efficiency enables teachers to manage their workload more effectively, balancing administrative duties with preparation and classroom interaction (Gillespie et al., 2023). In Indonesia's context, where teachers often manage large classes with limited support staff, the ability to reclaim hours previously spent on paperwork is transformative. Time saved can be redirected toward refining instructional strategies, developing engaging learning materials, and providing personalized support to students.

Furthermore, improved time management contributes to better work-life balance, reducing stress and burnout. Teachers feel empowered to manage responsibilities without sacrificing their well-being, which can positively influence job satisfaction and retention. Efficient administrative workflows also enhance school-wide productivity. When teachers complete documentation promptly, data-driven decisions such as identifying struggling students or adjusting curricula can be made faster and more accurately, benefiting the broader educational ecosystem.

Enhanced Accuracy and Consistency in Documentation

Manual administrative work is inherently vulnerable to errors typos, inconsistent terminology, formatting issues, and omissions are common, especially when teachers are pressured by time. Generative text AI improves documentation quality by applying consistent templates, using standardized language, and automatically checking for common errors. AI can enforce institutional formatting rules and ensure uniformity across reports, lesson plans, and communication documents.

This enhanced accuracy reduces the need for time-consuming revisions and minimizes misunderstandings or compliance issues that arise from inconsistent paperwork. For example, AI-generated assessment reports maintain consistent grading language and criteria explanations, ensuring fairness and clarity. In schools, consistent and accurate documentation fosters professionalism and trust among teachers, administrators, students, and parents. It also facilitates clearer communication and easier tracking of student progress, enabling timely interventions. By reducing human errors and standardizing documentation, generative AI supports the integrity and reliability of administrative processes, a critical factor for education quality assurance.

Accessibility and User-Friendliness of AI Tools for Teachers

For generative AI to truly reduce teachers' workload, it must be accessible and easy to use, considering the varied digital literacy levels among educators. Modern AI platforms prioritize user-friendly design, featuring intuitive interfaces that allow teachers to generate documents through simple prompts or data inputs (Bogost, 2022). Many tools integrate seamlessly with familiar applications like Microsoft Word, Google Docs, or school management systems, minimizing disruption. In Indonesia, where digital literacy ranges widely across regions and age groups, accessible AI tools encourage broader adoption . Features such as multilingual support, step-by-step guidance, and responsive help systems empower teachers to leverage AI with minimal training.

Furthermore, cloud-based AI services reduce the need for high-end hardware, allowing teachers to access powerful AI tools via standard computers or even smartphones. This flexibility is crucial in resource-constrained environments. By focusing on ease of use and integration, generative AI tools lower barriers to entry, making automation benefits attainable for a wide range of teachers.

Potential for Personalization and Customization to Local Context and Language (Bahasa Indonesia)

One of the unique advantages of generative text AI is its adaptability to specific languages and cultural contexts. For Indonesian teachers, AI tools that understand and generate content in Bahasa Indonesia and reflect local educational standards are essential. Generative AI can be trained or fine-tuned on Indonesian language datasets, capturing nuances, idiomatic expressions, and educational terminology that improve the relevance and readability of outputs.

Customization extends to curriculum alignment, where AI-generated lesson plans or reports can incorporate national education guidelines, pedagogical practices, and regional cultural elements. This ensures materials are not generic but tailored to the realities of Indonesian classrooms (Borges et al., 2021). Personalization also enables AI to learn from individual teacher preferences and school policies, providing increasingly relevant suggestions and templates over time. Such localization increases teacher trust and satisfaction with AI tools, enhancing their utility and adoption rates.

Supporting Examples or Case Studies Demonstrating Positive Impact

Real-world examples reinforce the theoretical merits of generative text AI. In various countries, schools that implemented AI-powered administrative tools reported significant workload reductions for teachers. For instance, in pilot programs in the US and Europe, AI-assisted grading and report writing saved teachers up to several hours weekly, allowing more time for student engagement. Feedback indicated improved job satisfaction and reduced burnout. In Indonesia, emerging education technology initiatives have begun introducing AI-based administrative support (Celik et al., 2022). Early adopters noted quicker report generation, fewer errors, and enhanced lesson planning efficiency. Teacher testimonies emphasize the relief from repetitive paperwork and increased focus on classroom activities. Case studies highlight critical success factors such as teacher training, infrastructure readiness, and culturally adapted AI models.

The practical advantages of generative AI in educational administration translate into significant time savings and workload reduction for teachers and staff. For instance, automating routine tasks such as lesson plan drafting, report writing, and communication letters can save an estimated 3 to 5 hours per week per teacher, depending on the complexity and frequency of these tasks. In schools with limited clerical support, this reclaimed time can be redirected toward lesson preparation, individualized student support, or professional development. AI tools can also streamline the process of creating differentiated instructional materials by generating multiple versions tailored to student ability levels, which would otherwise take hours to prepare manually. Moreover, AI's capacity to instantly summarize meeting notes or student feedback allows school leaders to make faster, more informed decisions. These tangible efficiencies highlight the transformative potential of AI in addressing administrative burdens and improving time management in schools.

Generative text AI offers profound merits in reducing teachers' administrative load by automating repetitive tasks, enhancing time efficiency, improving documentation accuracy, providing accessible tools, and supporting cultural and linguistic customization. These advantages empower teachers to devote more resources to teaching quality and student development, fostering better educational outcomes (Chen et al., 2022). For Indonesian primary teachers, whose workload is often intensified by bureaucratic demands and limited support, these AI benefits hold particular promise. As AI adoption grows, ongoing refinement and contextual adaptation will be key to maximizing its positive impact on teachers' professional lives and the broader education system.

Disadvantages and Issues of Generative Text AI in Teachers' Office Work

The use of generative text AIs comes with many promising advantages concerning the alleviation of a teacher's administrative burden. However, the implementation and use of such technologies is accompanied by a set of challenges and potential drawbacks. These challenges include but are not limited to socio-technological dependencies, privacy issues regarding data collection, teaching and learning concerns, as well as socio economic inequalities. In a context like Indonesia, with its disparate educational ecosystems, infrastructure, and cultural nuances, such challenges become more salient when seeking to responsibly and equitably harness AI in educational settings. This elaborates the primary demerits and challenges that educators, educational leaders, and policymakers need to address.

Education Technology Dependency and Possible Systemic Problems

The absence and unreliability of technological infrastructure, generative AI tools for education administrators, especially in developing regions, remains a major challenge. Most generative AI educational tools function on cloud platforms or require high-end computing and uninterrupted internet access. These prerequisites are a barrier to many schools facing limited digital infrastructure. In Indonesia's more isolated regions, many schools suffer from having an intermittent or sluggish Internet connection (Chui et al., 2021). This can pose challenges for real-time access to AI tools. Teachers face network difficulties, such as interruptions or being unable to save or submit important documents. These disruptions not only hamper productivity, but also sap resolve and confidence in the technology.

AI tool reliability can additionally be affected by other technical issues like software malfunctions, hardware failures, or cybersecurity attacks. Teachers risk encountering unexpected system crashes that caused corrupted files to inexplicably stall or yield erroneous outputs, which erodes trust in AI-powered tools. Dependence on technology raises even more concerns around contingency. What if the AI platform goes offline, is discontinued, or becomes financially prohibitive? Without a prespecified fallback manual process, continuity of administrative functions can be severely impaired. These challenges fundamentally stem from a lack of investment into digital infrastructure like stable broadband connections, reliable power sources, and hardware that can efficiently run AI applications. Moreover, schools need to establish technical support personnel capable of assisting teachers with software updates and adapting to changes.

Perils Of Losing Professional Judgement or Critical Thinking Skills In Administrative Tasks

Every form of automation, administrative in nature, has the potential to decrease the workloads of professionals. However, such automated systems do come with their corresponding challenges, especially with respect to the erosion of autonomy and expertise in one's field. The action of administering educational tasks involves more than just writing; it requires interpretation and ethical judgment. The sophisticated generative AI algorithms undergo training on enormous datasets, and as

a result, they may textually synthesize outputs that are bland, rote, or wholly devoid of the essential nuance needed to assess students meaningfully. Overdependence on AI-powered generation of reports, educational lessons, or even behavioral notes can significantly reduce a teacher's engagement in the active reflection of the students and education processes.

To illustrate, a student report generated by AI may summarize the grades reasonably accurately, but fail to provide qualitative analysis of the student's motivation, socioemotional development, or their learning challenges. In the case where educators do not reflexively review and modify AI outputs, documents created for administrative purposes may become overly objective or downright false. Such overdependence may neutralise judgment capabilities, for teachers may interpret AI suggested frameworks or content as gospel truth without contextualizing them using their experience-based evidence and pedagogical knowledge. In addition, educators lose the ability and freedom to tailor lessons or communications to suit the students because they are directed by rigid AI derived formats. It is crucial to maintain a balance where AI is a tool for educators and does not take over their role. Providing guidance on critical interactions with AI-generated content will enable educators to reinterpret drafts tailored to their personal preferences through the lens of AI suggestions.

Concerns Over Privacy and the Security of Data

The use of generative AI in education involves processing large volumes of sensitive data, including students' personal information, academic records, and in some cases, behavioral and health data. This raises significant concerns about privacy, confidentiality, and data security. While Indonesia has general data protection laws—such as the Personal Data Protection Act (PDPA)—there is currently no specific regulatory framework for educational data. Many AI tools used in schools are cloud-based, meaning that data is transmitted over the internet and stored on external servers, increasing the risk of unauthorized access or misuse. Without proper safeguards, both real and perceived risks can undermine trust not only in AI tools but in the broader digital infrastructure of schools.

Moreover, some AI platforms use collected data to improve their models, potentially sharing aggregated or anonymized information with third parties. In the absence of clear regulations and user controls, educators and students may lack transparency and autonomy over how their data is used. To ensure safe adoption, AI vendors and educational institutions must comply with national and international standards, including robust encryption, access controls, and data minimization practices. Equally important is training school staff in data protection protocols and establishing clear policies for metadata handling, data retention, and access authorization.

Another major challenge lies in the cultural and curricular mismatch of AI-generated content with the Indonesian educational context. Most generative AI models are trained primarily on English-language and Western-centric datasets, which can result in outputs that fail to align with Indonesia's national curriculum or cultural values. For example, AI-generated lesson plans may omit competencies from the Kurikulum Nasional, or contain references irrelevant or inappropriate to local learners.

Similarly, student reports or parent communications may use unfamiliar terminology or styles that require teachers to make substantial revisions, reducing the intended efficiency gains. To address this, generative AI systems must be localized—trained on Bahasa Indonesia datasets, aligned with national education standards, and informed by local educators—ensuring that output is contextually relevant, culturally appropriate, and trusted by users.

Digital Illiteracy, Lack, or Resistance From Certain Educators

Another important problem stems from the social dimension the willingness and preparedness of educators to use generative AI. The educational workforce in Indonesia has a wide range of ages, years of experiences, and levels of digital skills. Especially in rural or under-resourced regions, instructors might be unfamiliar with digital technologies or could be daunted by the idea of using AI. Resistance can stem from a distrust in automation, fears of system complexity, or job turmoil (Luckin & Cukurova, 2019). If teachers lack the necessary skills and literacy, there is a high chance that they will not use AI tools effectively and might abandon them after the first few trials. This, in turn, limits the administrative potential that AI tools have. Tackling this issue requires teachers to take part in professional development workshops that build their confidence and skill set. Such programs should be contextualized to everyday tasks so that the teachings can be directly applied in real-life scenarios. Attitudes around using AI can be improved through peer mentoring, communities of practice, and continual support structures that provide ongoing guidance.

Certain Regions Infrastructural and Cost Barriers

The use of generative text AI tools in education is critically hindered by financial and structural limitations across various regions. Schools in Indonesia's economically disadvantaged and remote areas don't have the funds to meet the costs posed by purchasing compatible hardware or subscribing to AI services. Moreover, the presence of insufficient infrastructure, such as unreliable electricity, lack of computers or tablets, poor internet connectivity, limits the ability to deploy and maintain AI technologies. These differences risk establishing a digital divide where more well-funded schools are the only ones that gain advantages from AI, worsening the inequality in the education system. Access, infrastructure development, or even public-private partnerships are all options that can be looked at from subsidized access by policymakers and stakeholders to resolve these issues.

Report Examples Pertaining to the Issues

These issues are addressed by empirical research and pilot programs from around the globe: In rural India, connectivity issues as well as the lack of technical support meant that AI tools would not be adopted in schools which led to low adoption rates and angry teachers. European pilot programs for artificial intelligence have reported concerns about data privacy as some of the most significant barriers resulting in too much oversight and mandating additional governance as well as consent procedures (Edwards & Cheok, 2018). Research from Southeast Asia focused on a cultural mismatch problem where AI technology trained on Westernized syllabi produced no locally appropriate content. Indonesian

surveys reflect these ideas revealing teacher apprehension concerning infrastructure, digital skills, and data security in addition to cultural suitability. These mentioned examples highlight the need not just for the technical aspects of generative text AI but also social, cultural and socioeconomic in the context of education reform.

Generative text AI has the potential to alleviate the administrative burden for teachers by automating repetitive processes, increasing efficiency, and bettering documentation. In the context of Indonesian education, however, many challenges will need to be overcome first. These include dependence on technology and technical interruptions, damage to professional autonomy, privacy and security breaches, socio-cultural and curricular dissonance, apathy due to low levels of digital literacy, as well as infrastructural and financial barriers. Austrian educators encountered barriers that stem from pre-existing conditions which require an interdisciplinary strategy, focusing on infrastructure, specific professional training, frameworks for data management, the inclusive governance of culturally-informed AI, and policy development. Only with these comprehensive approaches will it be possible to administer generative text AI in such a manner that it can be used to ease workload and administrative tasks for teachers, thereby promoting equitable quality education in the country.

CONCLUSIONS

Text-generating Artificial Intelligence (AI) offers a promising avenue to support Indonesia's educational reform agenda, particularly in achieving the goals of the Merdeka Curriculum. This curriculum emphasizes teacher autonomy, differentiated instruction, and student-centered learning. By reducing the time teachers spend on repetitive administrative tasks, generative AI allows more space for planning, formative assessment, and reflective practice key elements of effective instruction. To ensure equitable implementation, specific policy actions are needed. These include the development of a structured teacher training model on AI use, starting from basic digital skills to practical applications such as automated lesson creation and documentation support. A dedicated funding scheme should also be introduced to assist under-resourced and rural schools in accessing necessary infrastructure, including internet connectivity, devices, and AI platforms that are compatible with Bahasa Indonesia and national curriculum standards.

In addition to infrastructure and training, collaboration between the Ministry of Education, educational technology developers, and teacher education institutions is essential to design AI systems that are locally relevant and pedagogically appropriate. These systems must integrate data privacy protections, ensure transparency in how content is generated, and allow teachers to provide feedback for continuous system improvement. Generative AI should not replace teachers, but instead function as a supportive tool that strengthens their professional capacity while honoring their instructional judgment. With careful planning and inclusive policy development, AI can contribute meaningfully to reducing administrative burden, improving teacher well-being, and advancing the quality and equity of education in Indonesia.

**Author Contributions:**

D. G.: Data generating and writing the article

A. A: Writing the article and translating

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

Informed Consent Statement/Ethics approval: Not applicable.

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