STRENGTHENING THE ROLE OF EDUCATIONAL INSTITUTIONS IN THE IMPLEMENTATION OF PP TUNAS FOR CHILD PROTECTION IN THE DIGITAL SPACE: A MULTI-STAKEHOLDER ANALYSIS

Ajeng Satiti Ayuningtyas Okta Ferdiana
Universitas Islam Internasional Indonesia
Email: ajeng.ferdiana@uiii.ac.id

ABSTRAK

Penelitian ini mengkaji peran penting lembaga pendidikan dalam proses penegakan Peraturan Pemerintah (PP) Nomor 17 Tahun 2025 yang diterbitkan pada April 2025. Perkembangan teknologi bagi anak-anak Indonesia, memiliki risiko disinformasi, penyalahgunaan media sosial, kekerasan siber, dan eksploitasi siber. PP Tunas bertujuan untuk memastikan perlindungan anak-anak di ruang siber. Namun, proses penegakan di lembaga pendidikan masih rendah. Dengan wawancara dengan guru, kepala sekolah, orang tua, pejabat dari lembaga pendidikan setempat, dan siswa dari sebuah sekolah negeri di Talang Ubi, ditemukan bahwa situasi saat ini berbeda antara tingkat nasional dan lokal, karena sekolah tersebut memiliki pendekatan yang tidak terstruktur terhadap pendidikan literasi digital bagi para siswa. Oleh karena itu, penelitian ini merekomendasikan peningkatan kapasitas di bidang etika digital di lembaga pendidikan guna membangun ekosistem perlindungan siber yang tepat bagi anak-anak Indonesia.

Kata kunci: *perlindungan anak, ruang digital, lembaga pendidikan, etika digital, kebijakan pendidikan*

ABSTRACT

This policy paper examines the key role played by educational institutions in the enforcement process of Government Regulation (PP) Number 17 of 2025, issued in April 2025. The development of technology has increased the danger level for Indonesian children, such as the risk of disinformation, misuse of social media, cyber violence, and cyber exploitation. The PP Tunas aims to ensure the protection of children in cyberspace. However, the enforcement process in educational institutions has remained low. With the help of interviews from teachers, the principal, parents, officials from the local education institution, and students from a public school in Talang Ubi, it is found that the current situation differs between the national and local levels, as the school has an unstructured approach towards digital literacy education for the students. The policy paper, therefore, recommends capacity building and enhancement in the area of digital ethics in educational institutions for the establishment of a proper cyber protection ecosystem for Indonesian Children.

Keywords: *child protection, digital space, educational institutions, digital ethics, educational policy*

INTRODUCTION

The digital environment is growing dynamically in Indonesia, with more than 48% of online citizens aged under 18 (Kemkomdigi, 2025). Kids dedicate up to seven hours daily online, often alone and lacking adult monitoring, making them susceptible to cyberbullying, abuse, and content issues (Maulani et al., 2024). Recent statistics from the Central Statistics Agency (BPS), as of 2024, reveal that 39.71% of early childhood in Indonesia have used mobile phones, and another 35.57% have used the internet. There is Government Regulation regarding PP TUNAS on child-protection that was approved in March 2025, where digital service providers need to develop child-friendly systems, meaning digital systems equipped with child-friendly verification processes, content filtering, and support for parents' controls and monitoring (Department of Manpower and Industrial Relations, Government of Indonesia, & Ministry of Manpower and Overseed Department, Government of Indonesia, 2024).

Despite these regulations, implementation disparities remain, especially in educational settings. Educational institutions are expected to be very significant, as they can help kids online and save them (Suryani & Nirwani, 2025), however, they lack adequate ability, resources, and expertise on this matter. There is currently a Memorandum of Understanding (MoU) signed by the Ministry of Primary and Secondary Education regarding cooperation on PP TUNAS through education platforms, though implementation and cooperation remain unclear.

Parties involved include ministries, educational institutions, teachers, parents, and non-governmental organizations. Socioeconomic inequalities can be considered as one of the many implementation barriers, as schools, especially in rural areas, have limited infrastructure and human capital (Vega et al., 2024). Under the theme of Policy and Disparities, PP TUNAS believes that schools act as powerful partners within education that can teach students the rights of digital citizens, cybersecurity, and utilizing the internet for moral purposes online. Yet, though still required of them through PSE, currently, three essential fundamental elements are lacking within the implementation of the roles of educational institutions concerning

Teacher Capacity Gap: There is a lack of expertise and training on cybersecurity and PP Tunas content that would create an irregular implementation of these issues within the curriculum (Hartahti & Nahda, 2025; Rahmawanti & Iskandar, 2025). Teachers encounter problems implementing technology content into their curriculum due to a lack of expertise and technology support (Francom, 2019; Hartati & Nahda, 2025).

Equity Disparity: It is heavily reliant on initiatives by individual schools and, as such, perpetuates inequity in digital provision afforded to schools that are adept at technology and other schools that lack resources and are in remote locations. According to Maisaroh et al., digital literacy not only involves technical skills but, more importantly, critical thinking skills involving information analysis (Maisaroh et al., 2025).

Active Parental Involvement: If parents are not provided adequate education on activation and utilization of the Parental Control service of PSE, its effectiveness will be wasted (Maula, 2023; Siti Aminah, 2024; Ulfah, 2020). Only reliance on PSE regulation is not sufficient for child protection on a broader scale, as all other participants, such as schools, teachers, as well as parents, need improved capability as well.

Moreover, cyber safety has not been integrated into the national curriculum and teachers' qualifications (Karengga, 2025; Surahman et al., 2025). To address this issue, the government issued Government Regulation No. 17 of 2025 (PP TUNAS) as a follow-up on the implementation of the ITE Law. Protection is required by Electronic System Providers (PSE), and child profiles should not be used for commercial purposes; there should be facilities for age verification and control for parents.

METHOD

This study employs a qualitative case study design to explore the role of educational institutions in implementing digital literacy for child protection in the digital space. The case study approach allows for an in-depth understanding of complex phenomena in real-life contexts. Field qualitative data collected from focus group interviews with students as well as from interactions with teachers school administrators, parents, and local education authorities at a Talang Ubi

public school, contributed to this policy paper. Children are regularly exposed to the Internet, where they come across Internet hoaxes and risks; nevertheless, schools fail to offer discernible directions. Parents as well as school administrators question the extent and nature of involvement in governing children's Internet activities. In this light, this research aims to investigate how the significance of educational institutions can be reinforced to play a pivotal role within the implementation of PP TUNAS.

DISCUSSION

The educational policy topic being studied

To examine how this regulation is implemented, qualitative research was conducted through in-depth interviews with students, principals, and parents at a public school in Talang Ubi, South Sumatra. A protective ecosystem does not accompany this ease of internet access. Findings from the field study suggest that the 9- to 12-year-old group accesses TikTok, Instagram, and Facebook, contrary to the regulatory age bar set by the government. This group is vulnerable to hoax information, has received messages and calls from unknown people, and has demonstrated variations with regards to threat responses on the internet. The policy brief examines the imperative gap between the PP TUNAS mandate and the current state of action on primary education, considers policy alternatives on capacity building for improvement, and suggests evidence-based, contextual, and practical recommendations for improvement. Digital literacy education has the potential to make passive receivers and actors for protection into pro-active Internet-savvy individuals, hence improving the capacity building within the institution of education. The role of PP TUNAS is to empower and develop a sense of cooperation among people. This study applies the Eightfold Path Methodology by Bardach to assess alternatives for policy and holds that building capacity based on values for education delivers the best and most long-term results.

The main thrust of the policy involves the strategic role of educational institutions within the PP TUNAS ecosystem involved in protecting children against the negative impacts of inappropriate content and data usage. PP TUNAS

describes digital literacy capability amongst children as the knowledge and skills that children need to use technology in a safe and prudent manner. Educational institutions are tasked with the responsibility of educating children on digital rights and internet ethics. Access to children below 13 years involves age verification and parental consent in the case of low-risk services. Access to children between 13 and 15 years involves parental consent and medium-risk services.

However, findings from public schools in Talang Ubi show that fourth- and 5th-grade students already have TikTok and Instagram accounts, indicating weak age verification on these platforms. Students also reported exposure to hoax content, such as news of child abductions on Facebook. Regarding teacher and principal readiness, the principal emphasized the importance of activating school digital devices. However, teachers identified a double burden between teaching and supervising students' highly active digital activities outside of school hours. The "KANCE" learning community, as shown in these findings, also demonstrates strong local initiatives but still needs technical guidance and support from the Education Office on protocols for protecting student data.

Then the role of the guardian is for parents to acknowledge the existence of a "digital gap," in which children are more technically proficient, so supervision is carried out manually without understanding the parental control features. Parents struggle to manage parental controls because they do not know how. The PALI Education Office stated that cross-sector coordination (SKB) is being finalized to clarify supervisory responsibilities, as the findings indicate that the regional education office is confused due to its reliance on central government instructions.

Based on an analysis of policy documents and field findings, three main gaps were identified:

1. Regulatory-Operational Gap: PP TUNAS mentions the role of educational institutions but does not translate this into Minister of Education regulations, technical guidelines, or performance indicators that can be used in schools. Vague mandates risk being ignored amid a crowded curriculum.
2. Capacity and Resource Gap: Despite local initiatives such as communities created by teachers, the majority of elementary schools do not yet have teachers trained in digital literacy pedagogy and contextual teaching

materials. Existing training focuses on technical skills (such as using Google Workspace) rather than on critical areas such as ethics, security, and computational thinking.

3. Collaboration and Accountability Gap: There is no formal mechanism connecting schools, parents, and PSE within the framework of digital protection. The burden of supervision rests on individual parents, while school accountability for implementing the PP TUNAS mandate is not measurable.

It is crucial to examine the PP TUNAS from a perspective of education. The educational institutions reach nearly all children in the Indonesian population in a crucial part of cognitive, social, and moral development. Interventions conducted within educational institutions promise a multiplier effect and good sustainability. Teaching children digital literacy skills goes beyond conveying technical skills. Digital literacy skills are part of children's rights to access safe information, to participate in a digital environment with dignity, and their privacy should be ensured. For these reasons, digital literacy education needs to be incorporated into the curriculum as well as into the school culture.

Such issues shed light on the policy implications: on one hand, the ideal framework set by PP TUNAS is sound, but on the other hand, any discussion on child digital security in cyberspace without the cooperation of schools, educators, and parents would mean that this policy would amount to nothing more than an inscription on paper. Education policy-wise, the need for the institutionalization of ethics in digital education for the sake of child protection within the framework of PP TUNAS arises.

Analysis of the Policy and Its Discussion

This analysis section integrates the role of educational institutions into the implementation of PP TUNAS by evaluating three policy options, following the critical steps in the Bardach framework. This analysis section presents three policy alternatives, then proposes and evaluates selected criteria, and then projects their

outcomes. To strengthen the role of educational institutions, three policy alternatives are proposed and analyzed:

1. Regulatory Intervention

The government requires all educational institutions to integrate the curriculum and teacher training with PP Tunas. Every school is mandated to develop a digital child protection protocol in line with PP TUNAS and establish clear Standard Operating Procedures (SOPs) for digital content screening, device usage, and reporting mechanisms.

2. Incentive-based approach

The government offers incentives to schools that voluntarily implement digital child protection standards and obtain certification. Introduce certification, such as Child-Friendly Digital School, for educational institutions demonstrating exemplary compliance. The government could provide competitive grants for schools developing innovative child protection programs and publicize best practices to encourage peer motivation. By applying this, other educational institutions encourage innovation and positive competition, but could be limited in coverage cause they only benefit from resources.

3: Capacity-Building Strategy

The government launched a national program to build school capacity through training, toolkits, and mentoring, with a focus on underdeveloped areas by providing continuous professional development for teachers and principals on digital safety and PP Tunas implementation. Integrate Child Online Safety modules into pre-service and in-service teacher education. Establish collaboration among Komdigi, Kemendikbudristek, and KPAI to co-design curriculum-based interventions. It will build sustainable, context-sensitive awareness and skills, but requires investment and long-term coordination across sectors.

Select the criteria by the alternatives which analyzed based on the five criteria below:

Table 1. Criteria for Evaluating Policy Alternatives (Adapted from Bardach)

Criteria	Explanation
Effectiveness	The significance of the policy's impact on digital child protection. Potential to achieve meaningful digital protection outcomes
Efficiency	Cost and resources required for implementation. Resource requirement relative to benefits
Equity	Ability to reach educational institutions in disadvantaged areas. Accessibility across diverse socioeconomic contexts
Political feasibility	Stakeholder support and potential resistance
Sustainability	Potential for long-term development and growth. Long-term viability beyond initial implementation.

Table 2. Project outcomes

Criteria	Regulatory Intervention	Incentive-Based Approrach	Capacity-Building Strategy
Effectiveness	High potential for comprehensive coverage but limited and slow impact.	Moderate; depends on participation	High long-term impact; strengthens internal culture.
Efficiency	Bureaucratic and high initial costs but decreasing overtime; potential for standardized resource allocation	Limited to schools with adequate resources.	Moderate; scalable via online modules.
Equity	Risk of uneven enforcement between urban–rural schools.	Promotes inclusion through universal teacher access.	Promotes inclusion through universal teacher access.

Criteria	**Regulatory Intervention**	**Incentive-Based Approrach**	**Capacity-Building Strategy**
Political Feasibility	High; aligns with PP TUNAS and existing laws.	Moderate; dependent on budget allocation.	High; fits national literacy agendas.
Sustainability	Dependent on enforcement consistency	Low; requires ongoing incentives.	High; fosters systemic cultural change.

Confront the Trade Offs

Regulatory options guarantee formal compliance but risk bureaucratization and superficiality. Incentive-based options encourage innovation but lack inclusivity and sustainability. Conversely, the capacity-building strategy strikes a balance between sustainability, political viability, and equity. Capacity-building is more centered on empowerment than enforcement, and as such, it encourages self-efficacy among educators and school leaders as digital guardians.

Decision (Analysis Conclusion)

Applying Bardach's principle of "choosing the best alternative given existing constraints" enabled the Capacity Building Strategy to be identified as the most appropriate and viable option. The strategy fulfilled four of these evaluation criteria, namely Effectiveness, equity, political feasibility, and sustainability, and was achieved through a prudent and viable investment of resources. Also, this option captures one of the PP TUNAS' visions of "encouraging parents, educators, and communities as active participants in shaping and securing a safe and sustainable digital environment." Consequently, capacity-building efforts on a nationwide scale as a platform for launching PP TUNAS have been adopted as a matter of emphasis on implementing PP TUNAS in education.

Tell Your Story

Using Bardach's approach, this analysis demonstrates that strengthening the capacity of educational institutions is the most effective and equitable strategy for implementing the Tunas PP. By equipping schools, teachers, and the education community with the right tools and education, Indonesia can create a safe and supportive digital ecosystem that fosters children's growth and development, involving various stakeholders from different sectors. Framing this policy as a narrative of children's rights and empowerment, rather than simply a compliance issue, strengthens its moral and political appeal. Investing in educator capacity means investing in children's digital futures. In this way, schools become active guardians, rather than passive implementers, thus fulfilling PP Tunas transformative goal of building a safe, ethical, and inclusive digital generation.

Recommendation

To strengthen the role of educational institutions in implementing Government Regulation No. 17 of 2025 on TUNAS (Government Regulation No. 17 of 2025) and ensure optimal child protection in the digital space, the government and Education Commissions, such as Commission X of the Indonesian House of Representatives (DPR RI), within the context of education policy, must take the following steps:

1. Continuous Capacity Training for Educators:
    a. Expand the definition of training: The government, through relevant ministries (e.g., the Ministry of Education and the Ministry of Communication and Digital), must require comprehensive training for all educators and school staff, not just ICT teachers, on digital risk identification, child psychology in cyberspace, and violation reporting procedures as stipulated in Government Regulation No. 17 of 2025 on TUNAS.
    b. Special Budget: Allocate a sufficient and dedicated budget for the development and implementation of training modules that adapt quickly to new technologies, such as digital wellbeing, AI risks, and social media for minors.
2. The government is also integrating a Critical and Creative Digital Literacy Curriculum:

a. Mandatory Curriculum: Digital literacy, which includes children's digital rights, cybersecurity, and internet ethics, must be a mandatory part of the national curriculum starting at preschool age, with a focus on developing children's abilities to create quality content and think critically.
b. Child Involvement: Involve children and parents/guardians in the design of educational programs and resources (in accordance with Article 12 of the CRC and the principles of child-centered design).

3. Formalization of Local Multi-Stakeholder Coordination Mechanisms
    a. Establishment of Regional Forums: Instruct the establishment of regional-level coordination forums, such as involving local governments, education offices, educational institutions, the Indonesian Child Protection Commission (KPAI)/NGOs, and representatives of educational institutions (SEs) to synchronize child protection strategies. This mechanism can serve as a platform for sharing resources, best practices, and managing a child-friendly complaints system.
    b. Partnership Incentives: Encourage PSEs to fulfill their corporate social responsibility (CSR) by providing resources such as infrastructure, training, and educational materials to schools in need, especially in areas with limited access, to reduce the digital divide.

CONCLUSION

This policy paper therefore proves that the effective application of the PP TUNAS surpasses the regulatory obligations. Another factor that plays an important role in the success of PP TUNAS regards the role of institutions in the education system as the basic environment for the acquisition of literacy skills, as at the current level, schools do not have functional frameworks and cooperation systems needed to ensure appropriate safeguarding. While the policy produces an excellent framework, effectiveness relies on the institutional capability for the application of policy into habitual operation. Interviews conducted among various stakeholders operating in public institutions produce empirical validation that children are actively participating within the digital environment without sufficient institutional control.

After traversing Bardach's Eightfold Path, ethical digital education-capacity building is considered the most effective and sustainable strategy. By upgrading teacher skills, integrating digital ethics in the curriculum, and facilitating cooperation with parents, educational institutions can play a pivotal role in

protecting children in the digital environment. The foremost recommendations are the integration of mandatory digital ethics curriculum, massive upgradation of teacher capacity, and strengthening educational partnerships for cooperation and collaboration with parents. Protecting the child requires national investment and begins with creating and ensuring that the digital environment is safe and fair, which requires effective cooperation among all stakeholders.

The adoption of these recommendations will make PP TUNAS not just a legal document but a living and breathing document in the day-to-day activities of educational institutions to ensure that each child in Indonesia is protected against digital risks and equipped to become informed, critically thinking, and ethical digital citizens. Boosting the position of educational institutions is essentially and strategically invested in the attainment of the visionary PP TUNAS to ensure that each child in Indonesia enjoys and accesses a safe, healthy, and fair digital environment seamlessly.

References

Badan Pusat Statistik. (2024). *Profil anak usia dini 2024* (Vol. 5). Badan Pusat Statistik. https://www.bps.go.id

Bardach, E., & Patashnik, E. (2020). *A practical guide for policy analysis: The eightfold path to more effective problem solving* (6th ed.). Sage Publications.

Francom, G. (2019). *Barriers to technology integration: A time-series survey study*. *Journal of Research on Technology in Education, 52*(3), 1–16. https://doi.org/10.1080/15391523.2019.1679055

Hartati, L., & Nahda, M. (2025). *Kurikulum literasi digital: Fondasi untuk masa depan berkelanjutan. Journal Education, Sociology and Law, 1*(1), 1–18.

Karengga, F. I. (2025). Analisis tantangan pengembangan media serta bahan ajar berbasis teknologi dalam peningkatan kompetensi literasi digital siswa MI. *Mubtadi: Jurnal Pendidikan Ibtidaiyah, 6*(2), 156–169

Kementerian Komunikasi dan Digital. (2025). *Tunaspedia: Buku 1 – Pelindungan anak di ruang digital*. Kementerian Komunikasi dan Digital. https://s.id/tunaspedia

Maisaroh, A. A., Sukriono, D., & Suhartono, E. (2025). *Optimalisasi literasi digital dalam materi pertahanan dan keamanan: Strategi pendidikan kontekstual di sekolah. Didaktika: Jurnal Kependidikan, 14*(2 Mei), 2181–2194.

Maula, F. (2023). *Parenting self efficacy kaitannya dengan penggunaan gadget anak usia dini* (Bachelor's thesis, FITK UIN Syarif Hidayatullah Jakarta).

Maulani, G., Septiani, S., Mukra, R., Kamilah, A., Utomo, E. N. P., Dayurni, P., ... & Evenddy, S. S. (2024). *Pendidikan di era digital.* Sada Kurnia Pustaka.

OECD. (2023). *Digital education outlook 2023: Teaching and learning in the digital age.* OECD Publishing.

Polizzi, G. (2020). *Digital literacy and the national curriculum for England: Learning from how the experts engage with and evaluate online content. Computers & Education, 152,* 103859.

Rahmawanti, F. D., & Iskandar, R. (2025). *Membangun kesadaran kemanusiaan di era digital: Tantangan literasi digital dan implementasi. Complex: Jurnal Multidisiplin Ilmu Nasional, 2*(2), 147–152.

Siti Aminah, M. M. (2024). *Peran orang tua dalam pembelajaran digital. Transformasi Pembelajaran Anak Usia Dini di Zaman Digital*, 99.

Smith, M., Nolan, M., & Gaffey, J. (2024). Online safety and social media regulation in Australia: *eSafety Commissioner v X Corp*. *Griffith Law Review*, *33*(1), 2–18. https://doi.org/10.1080/10383441.2024.2405760

Southgate, E., Naghizade, E., Corman, A., & Atherton, M. (2025). *Towards a governance roadmap for educational technology in Australian schools. The Australian Educational Researcher,* 1–28.

Surahman, H. S., Nugroho, M. T., Nanda, R. P., Rahmayanti, W., ... & Pd,

M. (2025). *Kompetensi guru di era digital: Menjadi pendidik cakap teknologi dan inovatif.* Penerbit KBM Indonesia.

Suryani, L., & Nirwani, N. P. (2025). *Kebijakan hukum dan perlindungan anak: Langkah strategis menjamin hak-hak anak.* Deepublish.

Ulfah, M. (2020). *Digital parenting: Bagaimana orang tua melindungi anak-anak dari bahaya digital?* Edu Publisher.

UNESCO. (2023). *Digital citizenship education: Empowering learners in the digital era.* UNESCO Publishing.

Vega, A., Maharani, I. V. A., Putri, J. A., Hartono, M. R. A. M., & Navridya,

R. U. (2024). *Kesetaraan akses pendidikan: Analisis pengimplementasian nilai Pancasila dalam pemerataan akses pendidikan di Indonesia. Lentera Ilmu, 1*(2), 44–57.

Appendix

Documentation zoom interview and FGD with Principal, Teachers (6), Student (6), Parent (1), Education Staff District (1)