



The Impact of Advances in Digital Technology on Education and Students' Moral Character

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Abstract

Digital technological advancement has transformed contemporary educational systems by reshaping learning processes, expanding access to information, and influencing students' moral development. This study aims to examine the impacts of digital technology on education and students' moral character while identifying strategies for balancing educational innovation with ethical development. The research employed a non-empirical qualitative design using a literature review approach. Data were derived from scholarly journals, academic books, policy documents, and relevant educational publications concerning digital technology, digital literacy, character education, and student development. The findings indicate that digital technology contributes positively to educational effectiveness through increased learning accessibility, learner autonomy, motivation, collaboration, and pedagogical innovation. Simultaneously, technological exposure presents challenges related to academic integrity, digital dependency, cyberbullying, reduced interpersonal sensitivity, and moral degradation. The analysis further reveals that positive educational and moral outcomes depend on the integration of character education, digital literacy, family guidance, supportive school culture, and coherent educational policies. The study concludes that sustainable digital transformation in education requires a balanced framework that harmonizes technological advancement with ethical values, enabling students to become digitally competent, socially responsible, and morally grounded individuals in the digital era.

Keywords: Digital Technology, Education, Moral Character, Digital Literacy, Students.



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INTRODUCTION

The rapid expansion of digital technologies has fundamentally transformed educational ecosystems across the globe, reshaping not only instructional delivery mechanisms but also the social, cognitive, and ethical dimensions of learning. The integration of internet-based platforms, artificial intelligence-assisted learning environments, digital media, and mobile technologies has accelerated the transition from teacher-centered pedagogies toward more personalized, interactive, and learner-driven educational models. Within this context, educational institutions increasingly rely on digital infrastructures to facilitate knowledge acquisition, collaborative learning, and competency development that align with the demands of the twenty-first century. Contemporary discussions concerning educational transformation, however, extend beyond questions of technological efficiency and academic performance, increasingly focusing on the implications of digitalization for students' character formation and moral development. As digital technologies become deeply embedded in everyday learning experiences, concerns emerge regarding the extent to which technological advancement simultaneously cultivates desirable educational outcomes while reshaping ethical values, social behavior, and moral reasoning among younger generations (Jediut et al., 2021; Kemendikbudristek, 2023).

Existing scholarship has consistently demonstrated that digital technologies contribute significantly to enhancing educational accessibility, learner autonomy, motivation, and creative engagement. Digital learning environments have been associated with increased student participation, improved self-directed learning capacities, and broader access to educational resources regardless of geographical constraints (Jediut et al., 2021). Parallel investigations have highlighted the capacity of technology-mediated instruction to support the development of critical thinking, innovation, and collaborative competencies that are increasingly valued within contemporary educational frameworks

(Kemendikbudristek, 2023). Nevertheless, studies examining the relationship between technology and character development reveal a more complex and multidimensional reality. Research has documented both constructive and adverse influences, suggesting that digital engagement can simultaneously foster responsibility, independence, and information literacy while also contributing to ethical challenges associated with excessive digital exposure (Muslim & Kusmana, 2023; Taufiqurrahman, 2024). Such findings indicate that technological progress should not be understood merely as a pedagogical instrument but rather as a transformative social force capable of influencing the broader moral architecture of educational experiences.

Despite the growing body of literature, significant conceptual and empirical inconsistencies remain unresolved. A considerable proportion of previous studies tends to investigate educational outcomes and moral development as separate domains, resulting in fragmented understandings of how technological advancement simultaneously affects learning processes and character formation. Investigations emphasizing academic benefits frequently understate ethical implications, whereas studies focusing on moral decline often overlook the pedagogical opportunities generated by digital innovation (Febrianti et al., 2024; Syafitri et al., 2024). Furthermore, many analyses continue to adopt dichotomous perspectives that categorize technology either as a catalyst for educational progress or as a source of moral deterioration, thereby neglecting the dynamic interactions among educational institutions, family environments, digital literacy practices, and sociocultural contexts. Existing literature also exhibits limited integration of character education frameworks with digital literacy perspectives, creating a conceptual gap in understanding the mechanisms through which technological engagement shapes students' moral dispositions in contemporary educational settings (Pratiwi & Pritanova, 2017; Dwiyanita et al., 2025).

The persistence of these limitations carries substantial implications for both educational theory and policy formulation. Educational systems worldwide are increasingly confronted with the challenge of balancing technological innovation with the preservation of ethical and humanistic values. Concerns regarding digital dependency, cyberbullying, academic dishonesty, reduced interpersonal sensitivity, and declining communication ethics have become prominent issues within educational discourse, particularly among school-aged learners who interact extensively with digital platforms (Galuh, 2026; Febrianti et al., 2024). At the same time, attempts to strengthen character education often struggle to accommodate the realities of digitally mediated learning environments, resulting in interventions that fail to address the evolving nature of students' social interactions and moral decision-making processes. The absence of an integrated analytical framework capable of simultaneously examining educational advancement and moral transformation creates practical obstacles for educators, policymakers, and families seeking evidence-based strategies to guide students' responsible engagement with digital technologies (Dwiyanita et al., 2025; Kemendikbudristek, 2023).

Within this scholarly landscape, the present study positions itself at the intersection of digital education, character education, and moral development research by critically examining how technological advancement generates interconnected consequences for both educational processes and students' moral character. Rather than adopting a deterministic perspective that frames technology exclusively as either beneficial or harmful, this study approaches technological transformation as a multidimensional phenomenon whose outcomes are mediated by patterns of use, educational practices, institutional support, and value-oriented guidance. Such positioning responds directly to calls within recent literature for more holistic analyses capable of explaining the coexistence of educational opportunities and moral challenges within digitally transformed learning environments (Maulana et al., 2026; Muslim & Kusmana, 2023; Taufiqurrahman, 2024). The study therefore seeks to bridge fragmented discussions by synthesizing educational and ethical dimensions within a single analytical framework.

This research aims to examine comprehensively the impacts of digital technological advancement on educational development and the moral character of students, while identifying strategic approaches capable of maximizing educational benefits and mitigating potential ethical risks. The study contributes theoretically by offering an integrated perspective that connects digital transformation, educational effectiveness, digital literacy, and character formation within a unified conceptual framework. Methodologically, it advances the literature through a systematic qualitative synthesis of relevant scholarly evidence, enabling a deeper understanding of the reciprocal relationship between technological innovation and moral development in contemporary educational contexts. The findings

are expected to provide a stronger foundation for future educational policies and pedagogical practices that seek to harmonize technological progress with the cultivation of responsible, ethical, and socially conscious learners.

RESEARCH METHODS

This study employed a non-empirical qualitative research design using a literature review approach to examine the impact of digital technological advancement on education and students' moral character. The study relied exclusively on secondary data derived from scholarly sources, including peer-reviewed journal articles, academic books, government policy documents, and reputable educational reports addressing digital technology, digital literacy, character education, and student development. The selection of literature was guided by relevance, academic credibility, publication quality, and alignment with the research objectives. Sources were systematically screened to ensure their substantive contribution to understanding both the educational benefits and moral implications of digital technology. The analytical framework was constructed around two interconnected dimensions: the influence of digital technology on educational processes and its effects on the moral and character development of learners.

The analysis was conducted through a qualitative content analysis procedure involving data reduction, thematic categorization, interpretation, and synthesis of findings across the selected literature. Relevant concepts, arguments, and empirical findings were identified and organized into recurring themes related to learning effectiveness, digital literacy, ethical behavior, character formation, academic integrity, and responsible technology use. To enhance methodological rigor, the study employed source triangulation by comparing evidence from multiple scholarly publications and institutional documents, thereby minimizing interpretive bias and increasing analytical consistency. The trustworthiness of the findings was further strengthened through systematic documentation of the review process, critical evaluation of source credibility, and continuous comparison of convergent and divergent perspectives within the literature. Since the study exclusively utilized publicly accessible secondary sources and did not involve human participants, formal ethical approval was not required; nevertheless, academic integrity was maintained through accurate citation practices and responsible representation of all referenced works.

RESULTS AND DISCUSSION

Digital Technology as a Catalyst for Educational Transformation

The literature synthesis indicates that digital technology has altered the architecture of educational processes by expanding access to information, diversifying learning resources, and enabling greater flexibility in instructional delivery. Educational interactions are no longer confined to conventional classroom settings because digital platforms facilitate continuous engagement between learners and learning materials. The reviewed studies consistently suggest that technology-mediated learning environments promote more autonomous forms of knowledge acquisition and encourage active learner participation in educational activities (Jediut et al., 2021). This transformation reflects a broader shift from transmission-based instruction toward learning models that emphasize interaction, exploration, and self-regulated learning.

Contemporary educational systems increasingly integrate digital technologies to enhance learning effectiveness and prepare students for participation in knowledge-based societies. The availability of online learning platforms, digital libraries, and interactive applications has broadened opportunities for students to access educational content beyond institutional boundaries. Research findings indicate that digital learning environments can strengthen learner motivation by creating more engaging and responsive educational experiences (Jediut et al., 2021). Such developments illustrate how technological innovation functions not merely as a supporting tool but as a structural component of modern educational ecosystems.

A recurring theme identified in the literature concerns the relationship between technological accessibility and learner autonomy. Students who regularly engage with digital resources tend to develop stronger capacities for independent learning because information can be obtained rapidly and evaluated through multiple sources. Educational frameworks emphasizing digital literacy encourage learners to assume greater responsibility for their academic progress and decision-making processes

(Kemendikbudristek, 2023). The emergence of these competencies aligns with broader educational objectives that prioritize critical inquiry and lifelong learning.

The reviewed literature also highlights the role of digital technology in facilitating collaborative learning practices. Virtual discussion forums, cloud-based learning platforms, and interactive communication tools enable students to exchange ideas across geographical and institutional boundaries. Such interactions contribute to the development of communication skills and collective problem-solving capacities that are increasingly valued in contemporary education (Maulana et al., 2026). The educational significance of collaboration extends beyond academic achievement because it supports the cultivation of social competencies necessary for participation in digitally connected communities.

Critical examination of the literature reveals that technological integration contributes to the diversification of pedagogical approaches. Educators can employ multimedia resources, simulation-based learning, and interactive content to accommodate diverse learning preferences and cognitive needs. The resulting instructional flexibility has been associated with increased student engagement and improved comprehension of complex subject matter (Muslim & Kusmana, 2023). Educational innovation consequently emerges as a product of the interaction between technological capability and pedagogical adaptation.

To clarify the dominant educational benefits identified across the reviewed literature, the synthesized findings are presented in Table 1. The table categorizes recurring themes and illustrates the principal educational outcomes associated with digital technology integration. These categories emerged through thematic analysis of the selected scholarly sources and policy documents. The classification demonstrates the multidimensional nature of educational transformation in digitally mediated environments.

Table 1. Major Educational Impacts of Digital Technology Identified in the Literature

Dimension of Impact	Educational Contribution	Key References
Information Accessibility	Faster and broader access to learning resources	Jediut et al. (2021); Kemendikbudristek (2023)
Learning Motivation	Increased engagement and participation	Jediut et al. (2021)
Independent Learning	Development of self-regulated learning skills	Kemendikbudristek (2023); Muslim & Kusmana (2023)
Collaborative Learning	Enhanced communication and teamwork	Maulana et al. (2026)
Learning Innovation	Adoption of interactive and flexible pedagogies	Syafitri et al. (2024); Taufiqurrahman (2024)

The evidence summarized in Table 1 suggests that educational transformation extends beyond improvements in technological efficiency. Several studies emphasize that digital technologies create new conditions for learning by altering how knowledge is produced, accessed, and shared within educational settings. The interaction between technological tools and pedagogical strategies generates opportunities for deeper learner engagement and more adaptive educational experiences (Syafitri et al., 2024). Educational outcomes consequently depend not only on technological availability but also on the quality of instructional implementation.

Analysis of the literature indicates that digital technology supports the development of higher-order cognitive competencies. Students operating within technology-rich environments frequently encounter diverse information sources that require evaluation, interpretation, and synthesis. Engagement with these processes encourages critical thinking and analytical reasoning, both of which are essential for navigating complex informational landscapes (Taufiqurrahman, 2024). Educational institutions increasingly recognize these competencies as foundational requirements for successful participation in contemporary society.

The relationship between technology and educational quality remains contingent upon institutional readiness and pedagogical design. Access to digital tools alone does not guarantee meaningful educational improvement because learning outcomes depend on how technology is integrated into instructional practices. Policy-oriented analyses emphasize the importance of aligning technological implementation with educational objectives and competency-based learning frameworks (Kemendikbudristek, 2023). Effective integration requires a balance between technological innovation and sound pedagogical principles.

Scholarly discussions increasingly frame digital transformation as a process that redefines the educational experience rather than merely modernizing existing practices. Technology creates opportunities for personalized learning pathways, broader participation, and expanded educational accessibility while simultaneously reshaping learner expectations and institutional responsibilities. The literature demonstrates that educational transformation is most sustainable when technological adoption is accompanied by strategic planning, digital literacy development, and continuous pedagogical adaptation (Maulana et al., 2026). These findings position digital technology as a significant driver of educational change whose influence extends across instructional, cognitive, and organizational dimensions.

The Influence of Digital Technology on Students' Moral Character Formation

The literature reviewed demonstrates that the influence of digital technology extends beyond academic processes and reaches the domain of moral character formation. Character development is increasingly shaped by interactions occurring within digital environments because students spend substantial portions of their daily lives engaging with online platforms and networked communication systems. Contemporary scholars argue that digital spaces have become important socialization arenas where values, attitudes, and behavioral norms are continuously negotiated and reconstructed (Muslim & Kusmana, 2023). Moral development consequently emerges through a complex interaction between educational experiences, social influences, and technological exposure.

A significant body of literature recognizes that digital technology can facilitate positive character development when used within supportive educational contexts. Access to diverse information sources encourages intellectual curiosity and promotes habits of independent inquiry that are closely associated with responsibility and self-discipline. Students who engage constructively with digital learning resources often demonstrate increased initiative in managing academic tasks and pursuing personal learning goals (Taufiqurrahman, 2024). Such outcomes suggest that technological engagement may strengthen character attributes that support both academic success and personal growth.

Several studies emphasize that digital literacy functions as an important mediating factor between technology use and moral development. Digital literacy involves not only technical competence but also the capacity to evaluate information critically, communicate ethically, and exercise responsible judgment in online environments. Educational approaches that integrate digital literacy with value-based learning appear more capable of fostering reflective and ethically informed behavior among students (Pratiwi & Pritanova, 2017). The moral implications of technology use are therefore shaped by the quality of guidance students receive when navigating digital spaces.

The literature also highlights the capacity of technology to expose students to broader cultural perspectives and social experiences. Interactions with diverse viewpoints may encourage tolerance, empathy, and openness toward difference when accompanied by critical reflection and ethical guidance. Digital platforms create opportunities for intercultural communication that were previously unavailable to many learners, thereby expanding the social dimensions of character formation (Syafitri et al., 2024). Positive moral outcomes become more likely when educational institutions actively facilitate constructive engagement with such diversity.

Critical scholarship simultaneously identifies substantial risks associated with uncontrolled technological exposure. Excessive engagement with digital media may weaken interpersonal sensitivity because virtual interactions often reduce opportunities for direct social communication and emotional understanding. Researchers have linked prolonged digital dependency with declining social responsibility and reduced attentiveness to the ethical consequences of online behavior (Febrianti et al., 2024). These concerns indicate that technological advancement may generate tensions between convenience and character development.

The major moral implications identified across the reviewed literature are summarized in Table 2. The thematic categories presented below reflect recurring patterns observed in studies addressing digital technology and character formation. Both constructive and adverse dimensions appear consistently throughout the literature, revealing the dual nature of technological influence on students' moral development. The evidence suggests that outcomes depend largely on the context and manner of technology utilization.

Table 2. Moral Character Implications of Digital Technology in Educational Contexts

Character Dimension	Positive Implications	Potential Risks	Key References
Responsibility	Independent learning habits	Overreliance on digital tools	Muslim & Kusmana (2023)
Honesty	Access to educational resources	Academic plagiarism	Febrianti et al. (2024)
Empathy	Exposure to diverse perspectives	Reduced interpersonal sensitivity	Galuh (2026)
Discipline	Flexible learning management	Digital addiction and distraction	Purba et al. (2024)
Respect and Ethics	Digital citizenship awareness	Cyberbullying and harmful communication	Kholifah et al. (2024)

The patterns summarized in Table 2 reveal that moral development in the digital era cannot be understood through simplistic assumptions regarding technological benefits or harms. Positive outcomes are typically associated with guided engagement, structured learning environments, and strong ethical frameworks. Negative outcomes frequently emerge when technological access is disconnected from supervision, character education, and responsible digital practices (Purba et al., 2024). Character formation therefore depends on the interaction between technological conditions and educational interventions.

One of the most frequently discussed concerns within the literature relates to the growth of cyberbullying and unethical online communication. Digital platforms allow rapid dissemination of content and facilitate interactions that may occur without adequate accountability or empathy toward others. Research examining online behavior among students indicates that anonymity and reduced social cues can contribute to hostile communication patterns and diminished moral restraint (Galuh, 2026). Such tendencies create challenges for educators seeking to cultivate respectful and socially responsible conduct.

Another recurring issue concerns the relationship between technology use and academic integrity. Easy access to digital information has expanded educational opportunities while simultaneously increasing the likelihood of plagiarism and other forms of academic misconduct. Several authors argue that technological convenience may weaken ethical decision-making when students prioritize efficiency over intellectual honesty (Kholifah et al., 2024). The challenge facing educational institutions involves fostering a culture in which technological accessibility is accompanied by strong commitments to integrity and accountability.

The literature ultimately portrays moral character formation in the digital era as a dynamic and contested process rather than a predictable outcome of technological adoption. Educational success cannot be measured solely through improvements in access, efficiency, or academic performance because character development remains a central objective of schooling. Studies consistently emphasize that moral values require deliberate cultivation through educational practices capable of integrating ethical reflection with technological engagement (Zaer & Misra, 2025). The evidence indicates that digital technology serves as a powerful influence on character formation, yet its direction and consequences are largely determined by the social and educational structures within which it is embedded.

Integrative Strategies for Balancing Educational Innovation and Moral Development

The literature indicates that the challenges emerging from digital transformation cannot be addressed solely through technological regulation or educational modernization. Sustainable responses require integrative strategies capable of connecting academic advancement with the cultivation of ethical and moral values. Scholars increasingly argue that character education should function as a foundational component of digital learning rather than an independent educational agenda operating separately from technological development (Dwiyana et al., 2025). Educational institutions consequently face the responsibility of designing learning environments where technological competence and moral responsibility evolve simultaneously.

One of the most frequently emphasized strategies involves the integration of character education into everyday instructional practices. Character values become more meaningful when embedded within learning activities that require students to demonstrate responsibility, honesty, respect, and critical judgment while using digital technologies. Research examining contemporary educational models suggests that moral development is strengthened when ethical reflection is incorporated directly into academic experiences rather than delivered through isolated moral instruction programs (Annisa et al., 2024). Such integration encourages students to perceive ethical conduct as an essential dimension of digital participation.

The reviewed studies also highlight the importance of strengthening digital literacy as a mechanism for supporting responsible technology use. Digital literacy encompasses competencies related to information evaluation, media interpretation, online communication, and ethical decision-making in digital environments. Educational frameworks emphasizing these competencies appear more capable of preparing students to navigate complex technological ecosystems while maintaining moral awareness and social responsibility (Pratiwi & Pritanova, 2017). The educational value of digital literacy extends beyond technical proficiency because it shapes how individuals interpret and respond to ethical challenges encountered online.

Several scholars identify school culture as a critical factor influencing the effectiveness of character formation initiatives in digitally mediated contexts. Institutions that consistently reinforce shared values through policies, classroom practices, and interpersonal relationships create conditions that support the internalization of ethical norms. Character development becomes more sustainable when educational values are reflected in the daily experiences of students rather than confined to formal curricular documents (Abakar et al., 2025). The interaction between institutional culture and technological engagement therefore plays a decisive role in shaping student behavior.

The literature further demonstrates that family involvement remains an indispensable element in efforts to balance technological innovation and moral development. Parents influence patterns of technology use through supervision, guidance, and the modeling of responsible digital behavior. Studies addressing moral challenges in the digital era consistently report that inadequate parental monitoring increases vulnerability to problematic online activities and ethical misconduct (Nurhabibah et al., 2025). Effective character formation requires continuity between educational values promoted at school and those reinforced within the home environment.

To illustrate the principal strategies identified through the literature review, the synthesized findings are presented in Table 3. The categories below reflect recurring recommendations proposed by scholars and educational policymakers concerned with digital transformation and character development. Each strategy addresses a distinct dimension of the relationship between technological advancement and moral education. The thematic convergence across multiple studies suggests broad scholarly agreement regarding the necessity of multidimensional interventions.

Table 3. Strategic Approaches for Harmonizing Digital Learning and Character Development

Strategic Area	Primary Objective	Expected Outcome	Educational Key References
Character-Integrated Instruction	Embed values within learning activities	Ethical and responsibility	decision-making Dwiyana et al. (2025)
Digital Development	Literacy Strengthen critical and ethical technology use	Responsible citizenship	digital Pratiwi & Pritanova (2017)

Strategic Area	Primary Objective	Expected Outcome	Educational	Key References
School Reinforcement	Culture Institutionalize shared values	moral Consistent norms	behavioral	Abakar et al. (2025)
Family Engagement	Supervise and technology use	guide Balanced digital behavior		Nurhabibah et al. (2025)
Religious and Education	Moral Strengthen foundations	ethical Moral resilience and self-regulation		Salisah et al. (2024)

The strategies summarized in Table 3 reveal that no single intervention is sufficient to address the complex implications of technological advancement. Educational institutions may provide formal instruction regarding ethical conduct, yet these efforts become less effective when disconnected from family engagement and broader social influences. Scholarly analyses consistently advocate collaborative approaches that combine educational, familial, cultural, and moral dimensions into a coherent framework for student development (Devonasista et al., 2025). The multidimensional nature of technological challenges necessitates similarly multidimensional responses.

Religious and moral education receives considerable attention within the literature as a means of strengthening students' ethical resilience. Researchers argue that moral reasoning is more likely to guide digital behavior when ethical principles are internalized through sustained educational experiences. Programs emphasizing religious values, social responsibility, and moral reflection provide students with normative frameworks that can inform decision-making in rapidly changing technological environments (Salisah et al., 2024). These findings position moral education as an adaptive resource rather than a traditional constraint on technological engagement.

Another important insight emerging from the literature concerns the role of educational policy in shaping responsible digital transformation. National educational frameworks increasingly emphasize the need to align technological innovation with broader developmental goals related to citizenship, character, and social responsibility. Policy initiatives supporting digital competence and character education demonstrate greater potential for producing balanced educational outcomes than approaches focused exclusively on technological infrastructure (Kemendikbudristek, 2023). Strategic policy alignment helps ensure that educational modernization remains connected to humanistic objectives.

The reviewed scholarship ultimately suggests that the future of education depends on the capacity to reconcile technological progress with enduring moral principles. Digital innovation offers unprecedented opportunities for learning, communication, and knowledge creation, yet these benefits require ethical foundations capable of guiding responsible participation in digital society. Studies examining educational transformation repeatedly conclude that character education should remain central to pedagogical innovation rather than being treated as a secondary concern (Putri, 2018; Sukma, 2021; Annur et al., 2023; Sanjaya et al., 2026). Educational systems that successfully integrate technological advancement with moral development are more likely to cultivate learners who are both digitally competent and ethically grounded.

CONCLUSION

The literature review demonstrates that digital technological advancement has fundamentally transformed educational processes by expanding access to knowledge, strengthening learning flexibility, fostering learner autonomy, and encouraging innovative pedagogical practices. At the same time, the evidence reveals that technological integration exerts a significant influence on students' moral character, producing both constructive outcomes, such as responsibility, critical awareness, and independent learning, and adverse consequences, including academic dishonesty, digital dependency, declining interpersonal sensitivity, and cyberbullying. The findings indicate that the educational and moral dimensions of digital transformation are inseparable, as technological engagement continuously shapes cognitive development and ethical behavior within contemporary learning environments. Effective responses require the integration of character education, digital literacy, institutional support, family involvement, and value-oriented educational policies that guide students toward responsible technology use. Educational transformation is most sustainable when technological innovation is

aligned with moral development, enabling learners to acquire digital competencies while maintaining ethical awareness, social responsibility, and humanistic values necessary for participation in an increasingly digital society.

REFERENCES

- Abakar, A. A. B., Kristiani, L. A., & Wulandari, A. (2025). Manajemen pendidikan karakter di era digital. *Jurnal Syntax Admiration*, 6(2), 1034-1042. <https://doi.org/10.46799/jsa.v6i2.2103>.
- Annisa, I. C., Agustina, I., Khasanah, L. N., & Apriliyani, N. (2024). Menempa Generasi Berkarakter: Kajian Pustaka Tentang Strategi Efektif Pendidikan Karakter di Era Digital. In *Social, Humanities, and Educational Studies (SHES): Conference Series* (Vol. 7, No. 3). <https://doi.org/10.20961/shes.v7i3.91730>.
- Annur, P. A., Susanti, E., & Gera, I. G. (2023). Urgensi Pendidikan Moral Sekolah Dasar dalam Membentuk Karakter Religius di Era Digital menurut Henry Alexis Rudolf Tilaar. *Jurnal Edukasi*, 1(3), 271-287. <https://doi.org/10.60132/edu.v1i3.182>.
- Devonasista, M. M., Romadhon, R., & Iswahyudi, D. (2025). Penguatan Pendidikan Karakter dalam Mengatasi Degradasi Moral Peserta Didik di Era Digital. *JlIP-Jurnal Ilmiah Ilmu Pendidikan*, 8(7), 8554-8562. <https://doi.org/10.54371/jljp.v8i7.8620>.
- Dwiyana, E., Azmalasari, D. P., Lestari, W. P., & Nuriyati, T. (2025). Penerapan Integrasi Pendidikan Karakter Dalam Pembelajaran Pendidikan Islam Yang Efektif Di Lingkungan Sekolah. *Tadribuna: Journal of Islamic Education Management*, 5(2), 134-145. <https://doi.org/10.61456/tjiec.v5i2.274>.
- Febrianti, S. A., Dewi, D. A., & Adriansyah, M. I. (2024). Lunturnya Nilai Moral dan Karakter Anak Bangsa Sebagai Dampak Dari Kemajuan Teknologi. *PRIMER: Jurnal Ilmiah Multidisiplin*, 2(1), 1-8. <https://doi.org/10.55681/primer.v2i1.269>.
- Galuh, Y. (2026). Pengaruh Penggunaan Media Sosial terhadap Perkembangan Moral Anak dengan Religiusitas sebagai Variabel Moderasi: Studi Literatur. *Pendekar: Jurnal Pendidikan Berkarakter*, 4(2), 01-16. <https://doi.org/10.51903/pendekar.v4i2.1687>.
- Jediut, M., Sennen, E., & Ameli, C. V. (2021). Manfaat media pembelajaran digital dalam meningkatkan motivasi belajar siswa sd selama pandemi covid-19. *Jurnal Literasi Pendidikan Dasar*, 2(2), 1-5.
- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi (Kemendikbudristek), (2023). *Panduan Pemanfaatan Teknologi Informasi dalam Penguatan Profil Pelajar Pancasila*. Jakarta: Kemendikbudristek.
- Kholifah, S. N., Pratiwi, S., & Chanifudin, C. (2024). Degradasi Moral Dalam Pendidikan Karakter Islam Peserta Didik Akibat Dari Penggunaan Gadget Tanpa Pengawasan Intensif. *Ta'rim: Jurnal Pendidikan dan Anak Usia Dini*, 5(2), 138-146. <https://doi.org/10.59059/tarim.v5i2.1313>.
- Maulana, F., Nasywa, A., Ramadhani, R., PP, B. A., Akmila, M. A., Ariyanto, M., & Widagdo, A. (2026). Dampak Kemajuan Teknologi Digital Terhadap Pendidikan dan Karakter Moral Peserta Didik di Era Transformasi Digital. *Journal of Social Humanities and Education*, 1(4), 325-335. <https://doi.org/10.65310/hgz63j78>.
- Muslim, F., & Kusmana, A. (2023). Pengaruh teknologi digital pada pembentukan karakter peserta didik di sekolah dasar. *Jurnal Muara Pendidikan*, 8(2), 410-418. <https://doi.org/10.52060/mp.v8i2.1534>.
- Nurhabibah, S., Sari, H. P., & Fatimah, S. (2025). Pendidikan karakter di era digital: Tantangan dan strategi dalam membentuk generasi berakhlak mulia. *Jurnal Manajemen Dan Pendidikan Agama Islam*, 3(3), 194-206. <https://doi.org/10.61132/jmpai.v3i3.1099>.
- Pratiwi, N., & Pritanova, N. (2017). Pengaruh literasi digital terhadap psikologis anak dan remaja. *Semantik*, 6(1), 11-24. <https://doi.org/10.22460/semantik.v6i1.p11-24>.
- Purba, H. M., Zainuri, H. S., Daffa, M. F., Nurhafizah, N., & Azhari, Y. (2024). Pendidikan karakter di era digital: Tantangan dan strategi. *Jurnal Pendidikan Dan Ilmu Sosial (Jupendis)*, 2(3), 236-246. <https://doi.org/10.54066/jupendis.v2i3.2038>.
- Putri, D. P. (2018). Pendidikan karakter pada anak sekolah dasar di era digital. *Ar-riayah: jurnal pendidikan dasar*, 2(1), 37-50. <https://doi.org/10.29240/jpd.v2i1.439>.

- Salisah, S. K., Darmiyanti, A., & Arifudin, Y. F. (2024). Peran pendidikan agama Islam dalam membentuk karakter peserta didik di era digital tinjauan literatur. *Al-Fikr: Jurnal Pendidikan Islam*, 10(1), 36-42. <https://doi.org/10.47945/alfikr.v10i1.378>.
- Sanjaya, E. V., Bagaskara, K. C., Madani, M. I., Maulia, A., Fadhilah, N. N., & Widagdo, A. (2026). Dampak Kemajuan Teknologi Digital Terhadap Bidang Pendidikan, Agama, Karakter dan Moral Peserta Didik. *Jurnal Penelitian Ilmiah Multidisipliner*, 2(04), 2511-2519.
- Sukma, H. H. (2021, August). Pendidikan karakter pada anak sekolah dasar di era digital dini. In *Prosiding Seminar Nasional Dies Natalis UTP Surakarta* (Vol. 1, No. 01, pp. 85-92). <https://doi.org/10.36728/semnasutp.v1i01.13>.
- Syafitri, S., Sholeh, M., Fransiska, A., Tasya, A., Amanda, A. F., Lorenza, D. M., ... & Hoiriyah, V. N. (2024). Transformasi karakter peserta didik akibat penggunaan teknologi. *NUSRA: Jurnal Penelitian dan Ilmu Pendidikan*, 5(2), 499-508. <https://doi.org/10.55681/nusra.v5i2.2496>.
- Taufiqurrahman, M. (2024). Transformasi Nilai Karakter di Era Digital: Pendekatan Integratif untuk Pendidikan Berbasis Teknologi. *PROGRESSA: Journal of Islamic Religious Instruction*, 8(2), 152-159. <https://doi.org/10.32616/pgr.v8.2.521.152-159>.
- Zaer, A. I., & Misra, M. (2025). Dampak teknologi digital terhadap pembentukan karakter Islami peserta didik di era society 5.0. *Akhlak: Jurnal Pendidikan Agama Islam Dan Filsafat*, 2(3), 85-92. <https://doi.org/10.61132/akhlak.v2i3.865>.