



The Impact of ChatGPT on Character Transformation in Educational Settings in Indonesia: A Scoping Review

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Abstract. Chat-GPT, an AI-powered language model, is transforming the academic world. Students, educators, and other academic practitioners adopt its advanced capabilities to complete tasks or reduce workloads. However, existing literature providing the trend of ChatGPT usage and its implications in Indonesian educational settings is diffuse. This scoping review aimed to explore the positive and negative impacts of ChatGPT on positive character development. Five electronic databases (Google Scholar, SAGE, Garuda, Taylor & Francis, and ScienceDirect) were searched for open-access articles on the education and psychology field published between 2019 and 2024 that were written in English and Indonesian. Of 36,536 citations identified, 16 met the inclusion criteria. The results indicated that the use of ChatGPT could have detrimental effects on educational settings in Indonesia such as over reliance and personalization. However, there are positive characters that could be optimized such as independence, responsibility, creativity, perseverance, moral growth, critical thinking, curiosity, and love of learnings. This finding implies that while ChatGPT has the potential to promote positive character development, its implementation must be carefully regulated to minimize negative consequences for character development.

Keywords: Artificial Intelligence, ChatGPT, Character, Education

1. Introduction

The use of ChatGPT in educational settings in Indonesia has drawn the attention of researchers and educational practitioners. It has begun to be widely adopted at all levels of education, from secondary schools to higher education. A study by Luthfiyyah, Zhafira, Nurani, and Giwangsa [1] found that over 65% of students at five major Indonesian universities have utilized ChatGPT to complete academic tasks, particularly for idea generation and early essay writing. This phenomenon is happening worldwide. Research in India showed that ChatGPT has the potential to support inclusive education by providing personalized assistance [2]. Besides, several universities in the United States and Europe have begun integrating ChatGPT into

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their curricula. For example, the Wharton School of Business uses ChatGPT in an operations management course to help students in analyzing business cases [3].

ChatGPT, short for "Chat Generative Pre-Trained Transformer," is an artificial intelligence (AI)-based language model developed by OpenAI. It is designed to interpret and produce text in human language, performing various tasks such as answering questions, writing content, assisting with programming, and more. ChatGPT has changed how people interact with AI and opened new avenues for use in various fields, including education, business, and technology.

However, the use of ChatGPT also poses some challenges. In Indonesia, for instance, teachers and lecturers were found to be unprepared to confront the ethical and pedagogical concerns of adopting ChatGPT in the classroom, such as about plagiarism and over-reliance. According to a survey conducted by Marlin et al. [4], over 78% of Indonesian educational institutions have integrated AI, such as ChatGPT, into their curricula. However, this rapid adoption is not offset by a thorough understanding of its impact on student mental health. Pertiwi et al., [5] found that while ChatGPT reduced academic anxiety in 55% of students, it also caused new forms of anxiety in 30% of respondents due to AI reliance. Furthermore, intensive use of ChatGPT may have a negative impact on students' interpersonal communication skills [6] and cause ethical and integrity issues [7].

Given the rapid growth and adoption of AI technology in education, as well as the complexities of its impact on non-cognitive aspects such as student character, more in-depth and comprehensive research is required, especially in Indonesian educational settings. ChatGPT, as one of the generative forms of AI, could significantly alter the way students learn, interact, and complete academic assignments. These changes can have a broad impact on essential aspects of character development, such as academic integrity, responsibility, perseverance, academic honesty, and critical thinking skills [8]. Strengthening positive personality traits, values, and behaviors through education remains crucial since it has been a focus of the Indonesian government through Presidential Regulation No. 87 of 2017 about Strengthening Character Education. Furthermore, as a multicultural and multi-religious society, Indonesia must cultivate a positive character through education in order to address social issues, preserve cultural values, and foster religious harmony [9].

The study aims to acquire insight into how ChatGPT has been utilized in educational settings in Indonesia, its impact to character development, as well as its implication for educational practice. The findings are expected to provide a strong scientific basis for developing educational policies and strategies that not only exploit the potential of ChatGPT but also maintain and enhance the mental well-being of students in this digital age.

2. Methods

This research adopts a scoping review method, as it is useful for studying a complex and heterogeneous field that has not been reviewed comprehensively [10]. It aimed to identify and map the evidence related to the positive and negative impacts of using

ChatGPT on character development in Indonesian educational settings. Arksey and O'Malley described the five stages of a scoping review as follows [11]:

Identifying Research Question. The questions in this research are, "How has ChatGPT been utilized in educational settings in Indonesia?" and "What evidence exists on its impact on character development and its potential implications for educational practices?"

Identifying Relevant Studies. The articles used in this scoping review were categorized into several inclusion criteria, including 1) research articles discussing the use of ChatGPT in the fields of education and psychology; 2) published in English or Indonesian; 3) open access; and 4) published between 2019 to 2024. Search articles relevant to this research were collected through five academic databases: Google Scholar, SAGE, Garuda, Taylor & Francis, and ScienceDirect.

Study Selection. During the literature selection process, researchers identified and organized searches into several keywords, which were divided into four search blocks: a) ChatGPT, chat GPT, artificial intelligence; b) education, academic; c) characters; and d) Indonesia. The literature search combines each keyword and search block using *boolean operators* (OR/AND). The literature search for this study was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-analysis for Scoping Reviews (PRISMA-ScR) [12].

Charting the Data. After searching through the databases, the title and abstract/summary were screened for articles that potentially meet the inclusion criteria. In the next stage, all reviewers screened the article full-text version. A summary of the literature search using PRISMA-ScR is summarized in Figure 1.

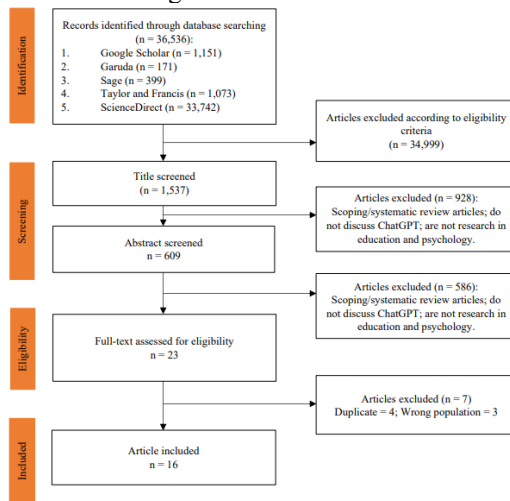


Figure 1 PRISMA-ScR flow diagram

Collating, Summarizing, and Reporting the Results. Data from the included articles were extracted into Microsoft Excel for further review. The extracted data includes research characteristics (author, year, title, research objectives), research methods (research design, subject characteristics, analysis), and results, as shown in Table 1.

Table 1 Key Characteristics of Included Articles

No	Articles	Research Objectives	Methods	Results
1	Harsya et al. (2024) [13]	To explore UNNES students' perspectives on the benefits and challenges of employing AI (ChatGPT) for learning.	Quantitative. Subject: UNNES students.	Most students believe that the use of AI in learning, such as ChatGPT, has a positive impact on information accessibility and learning efficiency. However, there were also limitations, such as a lack of natural human-machine interaction and privacy issues.
2	Wicaksono et al. (2023) [14]	To get an understanding of the impact and benefits of using ChatGPT in the field of education.	Qualitative descriptive. Subjects: 314 respondents from a total of 3,141 cadets.	The finding indicated that ChatGPT can be used as an educational tool for literacy by implementing three corrective steps: changing business patterns and character development, increasing literacy, and administering mixed exams that include written, oral, and practical assessments.
3	Yunizar et al. (2024) [15]	To investigate the influence of ChatGPT on student learning motivation in vocational high schools.	Quantitative. Subjects: 106 students on X grade majoring in Accounting at SMK N 6 Makassar	The relationship between learning media and student learning motivation is classified as moderate. As calculated using the KP formula, ChatGPT learning media contributes 16.81% to learning motivation.
4	Amala et al. (2023) [16]	To explore students' experiences in using the ChatGPT application.	Qualitative descriptive. Subjects: graduate students in UIN Sunan Ampel Surabaya.	Students acknowledge that adopting ChatGPT can increase communication and collaboration skills in a digital context, give a more diverse learning experience, and facilitate access to necessary information. However, several students are concerned about the dependency on ChatGPT.
5	Marlita, Z., et al. (2024) [17]	Exploring the perceptions of Universitas Negeri Semarang students regarding student laziness in the developing chatbot era.	Qualitative. Subject: students of UNNES	The research results showed that students' laziness in adjusting to chatbots is influenced by a variety of factors, including a lack of understanding of technology, resistance to change, and distrust of chatbots' reliability. One solution to overcome it is a comprehensive approach to providing practical training and education to ensure students can make the most of this technology without laziness.
6	Hutapea et al. (2024) [18]	To obtain evidence of the relationship between Nursing Students' Perceptions and Attitudes towards Using GPT Chat.	Quantitative. Subjects: students (n=73) of the Faculty of Nursing.	Through Pearson correlation coefficient analysis, the perception variable and the attitude variable towards use show a robust significant relationship with the interval $p = 0.60-0.799$, where the p-value is 0.721.
7	Tandiyono, T. E. (2024) [19]	To understand the impact of employing AI on the psychological condition of	Qualitative phenomenology. There were five participants	The negative influence of ChatGPT on Gen Z psychology such as over reliance that increase over time (from aspects of work, personal matters, etc), influence every decision, raises

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	Generation Z	considered Generation Z (1997–2012)	various questions concerning the self, and leads to worry. The positive influence of ChatGPT on Gen Z works and assignments in a variety of ways, energizing image.
Cahyanto et al. (2024) [20]	To determine the effect of ChatGPT on student independence in completing academic assignments.	Quantitative research. Subjects: 40 Surabaya Institute of Health and Business students.	ChatGPT has a good impact, such as allowing students to speed up the tasks given and provide information. However, the negative impacts include undertaking further research and limiting students' critical synthetic thinking skills.
Hadian et al. (2023) [21]	To obtain an overview of the use of ChatGPT as an educational medium at SMA Negeri 1 Sukabumi	Qualitative – case study research. Subjects: 13 teachers and 69 students in grade X.	The findings indicated that learning with ChatGPT supports the teaching and learning process and (2) supports learning goals and identifying each student's learning
Luthfiyyah et al. (2024) [1]	To discover the role of AI in lectures, especially ChatGPT, among PGSD students at Universitas Pendidikan Indonesia.	Qualitative – case study research. 30 PGSD students of Universitas Pendidikan Indonesia	The positive impacts such as providing ideas for complex assignments, and providing information. Negative impacts: creates an inability to think sustainably in Passive Learning, and create bias in
Subiyantoro et al. (2023) [22]	To explore the impact of using ChatGPT in the educational process	Qualitative. Subjects: Students, lecturers, and administrative staff at several universities	Positive impact: It can increase the accessibility of learning support, and help overcome individual process, and reducing lecturers' administrative. However, some students expressed concerns regarding interaction in learning due to the excessive use of AI
Saputra, N. J., & Hidayati, D. (2023) [23]	To explore how postgraduate lecturers in private universities perceive ChatGPT's ability to improve learning quality.	Qualitative descriptive methods with a case study approach.	The convenience provided by ChatGPT may eliminate lecturers and students. Effective use of ChatGPT is critical mindset, verifying information from trusted

13	Alfariz, A., & Julius, A. (2024) [24]	To investigate the impact of ChatGPT on the academic world through the lens of agentic psychology.	Quantitative descriptive. Subjects: 155 academics at UIN Imam Bonjol	The positive impact of ChatGPT: provide ideas for further development, helping students to do complex assignments, and providing information on the use of paraphrased language. While the negative impact of ChatGPT: causes critical thinking inability, deterioration of writing skills, sustainability in passive learning, and create bias from the truth of a science
14	Darwin et al. (2023) [8]	This research aims to determine the perceptions of English as a Foreign Language (EFL) students regarding the benefits and drawbacks of AI in terms of critical thinking.	Qualitative case study with thematic analysis. Subjects: 7 graduate students from distinct universities.	The finding indicated that AI is useful for enriching points of view in critical thinking, such as academic research or theory. However, it lacks personalization (the uniqueness of each individual and different learning styles), potential for echo chambers, and difficulty providing differentiated understanding.
15	Marzuki et al. (2023) [25]	To identify AI writing tools often used by EFL lecturers and their influence on students' writing abilities.	Qualitative case study. Subject: 4 EFL lecturers from 3 different universities.	The research results show that Chat-GPT can be a starting point for students who have difficulty finding ideas. It provides phrases or sentences that can develop and refine initial ideas and offers various ways to express them, including evidence or arguments. However, the ideas constructed are general and impersonal and do not promote critical thinking. Students can become overly reliant on these tools, which hinders creativity and critical thinking.
16	Bouteraa et al. (2024) [7]	This research aims to discover the motives behind students' use of ChatGPT and how their academic integrity plays a vital role in this decision.	Quantitative. This research uses a web-based survey design on non-science students in ASEAN countries.	Performance expectancy and social influence from friends and previous users are strong drivers for using ChatGPT. Students with high ethical standards and commitment to academic integrity are more cautious or refrain from using ChatGPT in their academic practices. Thus, these findings suggest that fostering a sense of integrity in students is essential to establishing responsible technology use and ethical standards.

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3. Results

The search strategy generated 36,563 articles from various databases. After applying inclusion criteria, 1537 articles were screened by title, resulting in 609 articles for abstract screening. Of these, 23 articles were assessed in full text. After excluding duplicates and articles with non-relevant populations, 16 articles (10 qualitative and 6 quantitative research) were included in the final analysis. The findings are described below:

The usage patterns of ChatGPT in Indonesian education. ChatGPT is found to be used in higher education (13 articles) and high school settings (2 articles) by students, lecturers, and academic staff. Meanwhile, one article did not specify its research setting but used Gen Z students as the subjects (1997 to 2012). For students, ChatGPT has been used to complete assignments, provide writing assistance, and solve problems, while teachers utilize it to organize lessons and presentations, complete administrative tasks [22], and support student assessment [21].

The impact of ChatGPT on character development. On the positive side, ChatGPT has been proven to increase information accessibility and learning efficiency for students [13]. ChatGPT helps students develop the ability to find and process information independently. Yunarzat et al. [15] found that the use of ChatGPT has a positive effect on vocational school students' learning motivation, so it can encourage the development of diligent and persistent character. Thohir et al. [16] also reported that it increased students' communication and collaboration skills in a digital environment, which supported the development of positive social character. However, it also has several detrimental effects on character development. ChatGPT might risk to student laziness [17] and reduce the independence in completing academic assignments [20], leading to a reliance on this technology. Furthermore, it might also decline in critical thinking abilities, writing skills [1], and academic integrity [7], which are important for the development of intellectual character. This finding proves the importance of establishing honesty and responsibility in using ChatGPT. It emphasizes the need for a balanced approach in integrating ChatGPT into education while prioritizing the development of students' positive character.

However, these researches lack quantitative data on how ChatGPT affects measurable learning outcomes, while the impact itself is mainly explored in the short-term study. On the other hand, there is a gap in comprehensive research on how educators adapt their teaching methods, assessment strategies, and curriculum design in response to AI tools.

4. Discussion

The usage patterns of ChatGPT in Indonesian education. The discussion about the usage of ChatGPT in educational context in Indonesia is not only focusing on its impact on completing learning and administrative tasks, but also its impact on character developments, such as academic integrity, responsibility, perseverance, academic honesty, and critical thinking skills [8]. According to Vygotsky's social constructivism, ChatGPT can be viewed as a new mediation tool in the child's zone of proximal development, promoting learning and cognitive development through contact with sophisticated AI systems [26].

The use of ChatGPT also has the potential to develop students' critical thinking skills and academic ethics [27], which are important components in character development. It also supports the

development of character strengths such as creativity and perseverance. On the other hand, ChatGPT can support the development of several character strengths, such as creativity, curiosity, and love of learning, by providing information and intellectual stimulation.

However, it must be balanced with the development of interpersonal skills and empathy, both of which are crucial aspects of character development that cannot be facilitated by interactions with AI [21]. Character strengths such as courage, integrity, and perseverance may require direct experience and real challenges to be fully developed [26].

The impact of ChatGPT on character development. Kohlberg's theory of moral development [28] also applies in this context, as ChatGPT can influence students' understanding of ethics and academic integrity. The use of ChatGPT can influence students' moral growth. ChatGPT can give complicated moral dilemmas for students to address, assisting them in developing sophisticated moral thinking. Because basically, character development needs moral knowledge, moral feelings, and moral behaviors [29]. Using ChatGPT can be very helpful in providing moral knowledge through discussions about ethics and moral issues.

In line with this, Bandura's social learning theory [30] emphasized the role of observational learning in character development. Although ChatGPT is not a model of human behavior, it can provide narrative examples and scenarios that demonstrate ethical and unethical behavior, allowing students to learn by example.

Based on this finding, it could be understood that using AI tools such as ChatGPT cannot be avoided in this digital era. However, it is crucial to highlight the importance of ethical guidelines in using ChatGPT to ensure that it supports, not hinders, students' moral development [31].

5. Conclusion

The use of ChatGPT in Indonesian educational settings, on the one hand, can increase information accessibility, learning efficiency, motivation, and digital communication and collaboration capabilities. However, it also has negative impacts such as decreased independence, critical thinking skills, writing skills, and academic abilities. It implies that while ChatGPT has the potential to promote good character development, its implementation must be carefully regulated to minimize negative consequences for students' character development.

These findings suggest that educational institutions should create and implement ethical guidelines for adopting ChatGPT that emphasize academic integrity and positive character development. For instance, designing a curriculum that integrates ChatGPT and character education initiatives that emphasize values like honesty, accountability, and hard work. On the other hand, educators should facilitate and supervise the students to use ChatGPT critically and responsibly, so that it will support, not replace, the development of important skills such as writing and problem-solving.

References

K. Luthfiyyah, L. Zhafira, S. Nurani, and S. F. Giwangsa, "Analisis Peran Artificial Intelligence (AI): ChatGPT dalam Perkuliahan di Kalangan Mahasiswa PGSD Universitas Pendidikan Indonesia," *Jurnal Pendidikan Tambusai*, vol. 8, no. 1, pp. 5282–5290, 2024.

- [2] K. Mujahid and R. Saha, "ChatGPT in Inclusive Education: A Study of Future Potential," *Emerging Trends In Indian Education & Culture*, vol. 88, 2024.
- [3] E. R. Mollick and L. Mollick, "New Modes of Learning Enabled by AI Chatbots: Three Methods and Assignments," *SSRN Electronic Journal*, 2022, doi: 10.2139/ssrn.4300783.
- [4] K. Marlin, E. Tantrisa, B. Mardikawati, R. Anggraini, and E. Susilawati, "Manfaat dan Tantangan Penggunaan Artificial Intelligences (AI) Chat GPT terhadap Proses Pendidikan Etika dan Kompetensi Mahasiswa di Perguruan Tinggi," *Innovative: Journal Of Social Science Research*, vol. 3, no. 6, pp. 5192–5201, 2023.
- [5] A. Pertiwi, I. Sappebua, L. Makkalo, and S. Paterek, "Pemanfaatan Artificial Inteligent (AI) ChatGPT dalam Dunia Pendidikan," in *Prosiding Universitas Kristen Indonesia Toraja*, 2023, pp. 118–126.
- [6] Y. A. Pratama, "Integrasi Pendidikan Madrasah dalam Sistem Pendidikan Nasional (Studi kebijakan Pendidikan Madrasah di Indonesia)," *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, vol. 10, no. 1, 2019.
- [7] M. Bouteraa *et al.*, "Understanding the diffusion of AI-generative (ChatGPT) in higher education: Does students' integrity matter?," *Computers in Human Behavior Reports*, vol. 14, p. 100402, May 2024, doi: 10.1016/j.chbr.2024.100402.
- [8] Darwin, D. Rusdin, N. Mukminatien, N. Suryati, E. D. Laksmi, and Marzuki, "Critical thinking in the AI era: An exploration of EFL students' perceptions, benefits, and limitations," *Cogent Education*, vol. 11, no. 1, Dec. 2024, doi: 10.1080/2331186X.2023.2290342.
- [9] R. Raihani, "Education for multicultural citizens in Indonesia: policies and practices," *Compare: A Journal of Comparative and International Education*, vol. 48, no. 6, pp. 992–1009, Nov. 2018, doi: 10.1080/03057925.2017.1399250.
- [10] Z. Munn, M. D. J. Peters, C. Stern, C. Tufanaru, A. McArthur, and E. Aromataris, "Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach," *BMC Med Res Methodol*, vol. 18, no. 1, p. 143, Dec. 2018, doi: 10.1186/s12874-018-0611-x.
- [11] H. Arksey and L. O'Malley, "Scoping studies: towards a methodological framework," *Int J Soc Res Methodol*, vol. 8, no. 1, pp. 19–32, Feb. 2005, doi: 10.1080/1364557032000119616.
- [12] D. Moher, A. Liberati, J. Tetzlaff, and D. G. Altman, "Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement," *PLoS Med*, vol. 6, no. 7, p. e1000097, Jul. 2009, doi: 10.1371/journal.pmed.1000097.
- [13] N. H. Harsya, Z. Claudia, M. Wulandari, A. W. Kumala, and N. S. Rismawati, "Evaluasi Pandangan Mahasiswa UNNES Terhadap Dampak Positif dan Hambatan Penggunaan AI (ChatGPT) dalam Pembelajaran," *Jurnal Majemuk*, vol. 3, no. 2, pp. 365–374, 2024, [Online]. Available: <http://jurnalilmiah.org/journal/index.php/majemuk>
- [14] A. W. Wicaksono and D. Sembiring, "Disrupsi Dunia Pendidikan Penerbangan Indonesia ChatGPT Dampak dan Manfaatnya Terhadap Dunia Pendidikan," *SKYHAWK: Jurnal Aviassi Indonesia*, vol. 3, no. 2, pp. 264–275, Sep. 2023, doi: 10.52074/skyhawk.v3i2.135.
- [15] E. Yunarzat, S. C. Sida, and K. Kasman, "Pengaruh Penggunaan ChatGPT terhadap Motivasi Belajar Siswa di Sekolah Menengah Kejuruan," *Jurnal Ilmu Pendidikan*, vol. 6, no. 2, 2024, doi: 10.31004/edukatif.v6i2.6489.
- [16] Y. 'Amala, M. Thohir, V. E. Reditiya, and N. I. P. Sari, "Refleksi Mahasiswa dalam Berkeadaban Digital melalui ChatGPT," *Jurnal Intelektual: Jurnal Pendidikan dan Studi Keislaman*, vol. 13, no. 2, pp. 109–128, Aug. 2023, doi: 10.33367/ji.v13i2.3978.

- [17] Z. Marlita *et al.*, “Persepsi Mahasiswa Universitas Negeri Semarang tentang Kemalasan Mahasiswa dalam Berkembangnya Era Chatbot: Tantangan dan Solusi dalam Pendidikan Tinggi di Konteks Universitas Negeri Semarang,” *Jurnal Majemuk*, vol. 3, no. 1, pp. 134–142, 2024, [Online]. Available: <http://jurnalilmiah.org/journal/index.php/majemuk>
- [18] G. L. Hutapea and J. Rantung, “Hubungan Persepsi Mahasiswa Keperawatan dengan Sikap Penggunaan Chat GPT,” *Jurnal Penelitian Inovatif*, vol. 4, no. 2, pp. 519–528, Apr. 2024, doi: 10.54082/jupin.350.
- [19] T. E. Tandiyono, “Serangan Masif Artificial Intelligence pada Sumber Daya Manusia: Pengaruh dan Dampak Psikologi Generasi Z (1997–2012): Studi Kasus pada Subjek IN-01,” *Observasi: Jurnal Publikasi Ilmu Psikologi*, vol. 2, no. 1, pp. 167–191, 2024.
- [20] H. N. Cahyanto, P. Pamungkas, and O. Zulkarnain, “Pengaruh Penggunaan ChatGPT terhadap Kemandirian Mahasiswa dalam Menyelesaikan Tugas Akademik,” *PREPOTIF: Jurnal Kesehatan Masyarakat*, vol. 8, no. 1, 2024.
- [21] T. Hadian, A. I. Awaluddin, D. Rostini, and A. Rosa, “Learning Implementation Using ChatGPT Media at SMA Negeri 1 Sukabumi.,” *Jurnal PAJAR (Pendidikan dan Pengajaran)*, vol. 7, no. 4, pp. 691–698, 2023.
- [22] S. Subiyantoro, I. N. S. Degeng, D. Kuswandi, and S. Ulfa, “Exploring the Impact of AI-Powered Chatbots (Chat GPT) on Education: A Qualitative Study on Benefits and Drawbacks,” *Jurnal Pekommas*, vol. 8, no. 2, pp. 157–168, Dec. 2023, doi: 10.56873/jpkm.v8i2.5206.
- [23] N. J. Saputra and D. Hidayati, “Persepsi Dosen Pascasarjana Universitas Swasta terhadap ChatGPT dalam Meningkatkan Mutu Pembelajaran,” *Jurnal Sistem dan Teknologi Informasi (JUSTIN)*, vol. 11, no. 3, p. 532, Jul. 2023, doi: 10.26418/justin.v11i3.67023.
- [24] A. Alfaiz and A. Julius, “Dampak Chat GPT (Generative Pre-Trained Transformer) bagi Dunia Akademik dari Perspektif Psikologi Agentik,” *Takris: Journal of Community Service*, vol. 1, no. 2, pp. 84–90, 2023, [Online]. Available: <https://ejournal.sentosa-edu.com/index.php/TKR>
- [25] Marzuki, U. Widiati, D. Rusdin, Darwin, and I. Indrawati, “The impact of AI writing tools on the content and organization of students’ writing: EFL teachers’ perspective,” *Cogent Education*, vol. 10, no. 2, Dec. 2023, doi: 10.1080/2331186X.2023.2236469.
- [26] R. W. P. Putra and N. W. Putri, “Analisis Dampak Penggunaan ChatGPT terhadap Kreativitas dan Kemandirian Belajar Siswa SMA,” *Jurnal Pendidikan dan Pembelajaran*, vol. 15, no. 2, pp. 45–58, 2023.
- [27] A. S. Nugroho and Y. Prasetyo, “Evaluasi Penggunaan ChatGPT dalam Meningkatkan Keterampilan Berpikir Kritis dan Etika Akademik Siswa,” *Jurnal Inovasi Pendidikan*, vol. 8, no. 1, pp. 75–90, 2023.
- [28] L. Kohlberg, *The psychology of moral development: The nature and validity of moral stages*. San Francisco: Harper & Row, 1984.
- [29] T. Lickona, *Educating for character: How our schools can teach respect and responsibility*. New York: Bantam Books, 1991.
- [30] A. Bandura, *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall, 1977.
- [31] N. Saputra and D. Hidayati, “Persepsi dosen pascasarjana Universitas Swasta terhadap ChatGPT dalam meningkatkan mutu pembelajaran,” *JUSTIN (Jurnal Sistem dan Teknologi Informasi)*, vol. 11, no. 3, pp. 532–537, 2023.

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