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Strengthening Civic Disposition, Sport Character, and Ethical Digital Communication through Deep Learning–Based Digital Projects

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Abstract **:** *This study aims to analyze the effectiveness of a Deep Learning-based digital project in strengthening Civic Disposition, sports character, and ethical digital communication in Generation Z students at SMPN 4 Anggeraja. The study used a one-group pretest-posttest design involving 64 seventh and eighth grade students. Data were collected through questionnaires, observations, and documentation, then analyzed descriptively. The results showed an improvement in all variables after the implementation of the Deep Learning-based digital project. Civic Disposition scores increased from 63.25 to 81.47, sports character from 65.18 to 83.26, and ethical digital communication from 61.94 to 84.02. These findings indicate that the Deep Learning-based digital project is effective in developing civic attitudes, sports character, and the ability to communicate politely and responsibly in the digital space. Thus, this approach can be a relevant learning alternative to support character building and 21st-century competencies in Generation Z students.*

Keywords*: Civic Disposition, sports character, ethical communication, Deep Learning.*

Introduction

The rapid development of digital technology has shaped new characteristics among learners, particularly Generation Z students, who are highly connected to smartphones, social media, and various digital platforms in both their learning activities and social lives. The fast-paced, visual, and concise nature of digital communication encourages students to express themselves more actively in online spaces. At the same time, however, these changes present significant challenges for schools in fostering responsible citizenship, promoting healthy social behavior, and developing students' ability to communicate respectfully and responsibly..[1]

Based on a preliminary assessment conducted with 64 seventh- and eighth-grade students at SMPN 4 Anggeraja using attitude observation sheets, short questionnaires, and teacher interviews, the findings revealed that students' Civic Disposition was still at a moderate level, with an average achievement of 48.4%. In terms of sportsmanship, the average achievement reached 49.1%, indicating that students' ability to accept outcomes, comply with rules, and cooperate fairly has not yet developed optimally. Meanwhile, the ethical digital communication dimension demonstrated a lower achievement level of 45.0%, reflecting weaknesses in using respectful language, communicating responsibly, and verifying information before sharing it in digital environments. These findings underscore that strengthening Civic Disposition, sportsmanship, and ethical digital communication represents an urgent and essential educational need for students.

From the perspective of sportsmanship, observations of school games and physical education activities revealed that many students still experience difficulties in accepting defeat, tend to blame their peers, and do not consistently comply with the rules of the game. In several activities, teachers reported behaviors that reflected a lack of fairness, including selecting teammates exclusively, showing reluctance to cooperate with certain classmates, and displaying limited respect for the decisions made by referees or teachers. These findings indicate that the values of sportsmanship—such as honesty, fairness, discipline, and mutual respect—have not yet been fully internalized in students' daily behavior..[3]

Another major concern is students' communication practices in digital environments. Based on an analysis of interactions in online class groups, as well as interviews with teachers and students, it was found that digital communication frequently failed to adhere to the principles of politeness, message clarity, and responsibility in conveying information. Some students commonly used inappropriate language, engaged in excessive joking, shared messages without verifying their accuracy, and gave little consideration to the potential impact of their messages on their peers' feelings. Teachers further reported that many students lacked an adequate understanding of ethical digital communication as an essential aspect of social responsibility and responsible digital citizenship.[4]

These findings indicate that the challenges faced by the partner school are interconnected, reflecting weaknesses in the cultivation of Civic Disposition, sportsmanship, and ethical digital communication. The limitations in Civic Disposition are evident in students' inconsistent demonstration of responsibility, social awareness, tolerance, and commitment to shared rules and agreements. Similarly, the low level of sportsmanship is reflected in students' limited ability to value the learning process, accept outcomes gracefully, and uphold the principles of fairness and cooperation. Furthermore, deficiencies in ethical digital communication are

associated with students' limited awareness of using the Indonesian language politely, effectively, and responsibly in digital environments.[5]

This situation is closely associated with the characteristics of Generation Z students, who are highly engaged in digital environments but have not yet been adequately equipped with the social competencies and digital ethics required to navigate them responsibly. Furthermore, discussions with teachers revealed that current instructional practices continue to emphasize cognitive achievement and content completion, while learning experiences specifically designed to foster civic attitudes, sportsmanship, and ethical digital communication through authentic and experiential activities remain limited. Consequently, these values have not been consistently internalized in students' daily behavior.[7]

The Deep Learning approach is considered highly appropriate for addressing these educational needs because it emphasizes meaningful, contextual, reflective, and problem-based learning. Through this approach, students are encouraged not only to understand concepts but also to construct meaning from their learning experiences, reflect critically on their attitudes and behaviors, and connect classroom learning with real-life situations. Furthermore, digital projects are selected as the primary instructional medium because they align well with the learning characteristics of Generation Z, who tend to prefer creative, collaborative, and technology-enhanced learning experiences.

Through Deep Learning–based digital projects, students are encouraged to work collaboratively in teams, design solutions to real-world problems within the school and surrounding community, develop digital messages or awareness campaigns, and present their work to the school community. This learning process directly cultivates responsibility, collaboration, tolerance, and social awareness as key dimensions of Civic Disposition. At the same time, it promotes sportsmanship by encouraging students to participate fairly, cooperate effectively, and engage in healthy competition. In addition, the projects foster ethical digital communication by providing opportunities for students to use the Indonesian language in a polite, well-reasoned, and responsible manner when creating and sharing digital content.[9]

Furthermore, the multidimensional nature of these challenges requires an interdisciplinary collaborative approach in this community service program. Strengthening Civic Disposition necessitates the application of civic education perspectives to cultivate students' civic values, attitudes, and orientations. Enhancing sportsmanship requires the integration of sport pedagogy, which emphasizes the development of fair play, discipline, emotional self-regulation, and teamwork through structured physical activities. Meanwhile, fostering ethical digital communication calls for expertise in language education to guide students in using the Indonesian language accurately, respectfully, and effectively across various digital communication contexts..[10]

Therefore, the integration of these three academic disciplines within this community service program represents a relevant and contextually appropriate strategy for addressing the actual needs of students at the partner school. Based on the findings from the preliminary assessment, this community engagement initiative is designed to strengthen Generation Z students' Civic Disposition, sportsmanship, and ethical digital communication through Deep Learning–based digital projects at SMPN 4 Anggeraja. Ultimately, the program aims to develop students who demonstrate strong character, engage in fair and collaborative interactions, and

communicate responsibly and ethically in digital environments.

Method

This study employed a pre-experimental research design using a one-group pretest–posttest approach to examine the effectiveness of Deep Learning–based digital projects in strengthening students' Civic Disposition, Sport Character, and ethical digital communication. The study was conducted at SMPN 4 Anggeraja, Enrekang Regency, South Sulawesi, involving 64 seventh- and eighth-grade students who were purposively selected based on the results of the initial needs assessment.

The research intervention consisted of the implementation of Deep Learning–based digital projects through a sequence of learning stages, including orientation, problem identification, project planning, collaborative project implementation, project presentation, and reflective evaluation. Throughout the intervention, students worked collaboratively in groups to produce digital outputs such as posters, short videos, and digital presentations that conveyed messages promoting civic values, Sport Character, and ethical digital communication.

Research data were collected using questionnaires measuring Civic Disposition, Sport Character, and ethical digital communication, which were administered both before and after the intervention. Supporting data were obtained through classroom observations, activity documentation, and students' digital project outputs. The validity of the research instruments was established through expert judgment, while their reliability was assessed using Cronbach's Alpha coefficients. Quantitative data were analyzed using descriptive statistics and a paired-samples *t*-test to determine whether there were significant differences between the pretest and posttest scores. Meanwhile, observational and documentary data were analyzed descriptively to provide contextual support for the interpretation of the quantitative findings. The study was conducted after obtaining formal permission from the partner school, and all participant information was treated confidentially in accordance with established research ethics principles.

Results and Discussion

Table 1. Number of Participants

Characteristics	Frequency (n)	Percentage (%)
Grade VII	32	50,0
Grade VIII	32	50,0
Male	30	46,9
Female	34	53,1
Total	64	100

Source: Research Data

As presented in Table 1, the study involved 64 participants, consisting of 32 seventh-grade students and 32 eighth-grade students. Regarding gender distribution, 30 students (46.9%) were male and 34 students (53.1%) were female. This relatively balanced distribution of participants in terms of both grade level and gender facilitated the implementation of the Deep Learning–based digital projects through heterogeneous collaborative learning groups, thereby promoting meaningful interaction, teamwork, and active participation throughout the learning process.

Prior to the implementation of the Deep Learning–based digital projects, a baseline assessment was conducted to determine students' initial levels of Civic Disposition, Sport Character, and ethical digital communication. The assessment provided a comprehensive overview of students' attitudes and behaviors before the intervention and served as the basis for evaluating the effectiveness of

the program. The results of the baseline assessment are presented in

Tabel 2. Students' Baseline Assessment

Variabel	Score (%)	Category
Civic Disposition	46,88	Sedang
Sport Character	48,13	Sedang
Ethical Digital Communication	42,50	Sedang
Overall Mean	45,84	Sedang

Source: Research Data

As presented in Table 2, the baseline assessment indicated that all three research variables were at a moderate level, with an overall mean score of 45.84%. Ethical digital communication recorded the lowest score (42.50%), followed by Civic Disposition (46.88%) and Sport Character (48.13%). These findings suggest that many students continued to experience difficulties in demonstrating civic attitudes, sportsmanship, and ethical digital communication practices in both classroom learning activities and their everyday social interactions. The results further underscore the need for an instructional intervention designed to strengthen these competencies through meaningful and authentic learning experiences.

Classroom observations further revealed that a number of students were still reluctant to participate actively in group decision-making, showed limited appreciation for differing opinions, and demonstrated inconsistencies in practicing collaboration and fair play. In addition, instances of inappropriate and less respectful language use in digital communication were observed among some students. These findings reinforce the need for implementing Deep Learning–based digital projects as an instructional intervention to strengthen students' Civic Disposition, Sport Character, and ethical digital communication through authentic, collaborative, and reflective learning experiences.

This study was conducted at SMPN 4 Anggeraja and involved 64 seventh- and eighth-grade students who belong to Generation Z. This generation is characterized by a high level of engagement with digital technology, frequent use of social media, and a preference for learning through visual, interactive, and collaborative activities. Accordingly, Deep Learning–based digital projects were selected as the instructional strategy because they effectively integrate the development of Civic Disposition, Sport Character, and ethical digital communication within a meaningful, contextual, collaborative, and reflective learning experience.

Following the implementation of the Deep Learning–based digital projects, a post-intervention assessment was conducted to examine changes in the three research variables: Civic Disposition, Sport Character, and ethical digital communication. The posttest results were then compared with the baseline assessment to evaluate the effectiveness of the intervention. The results of the post-intervention assessment are presented in

Tabel 3. Comparison of Pre- and Post-Intervention Scores

Variabel	Pretest	Posttest	Improvement %
Civic Disposition	63,25	81,47	35,93 %
Sport Character	65,18	83,26	35,95 %
Ethical Digital Communication	61,94	84,02	43,44 %
Overall Mean	45,84	84,27	38,43%

Source: Research Data

As presented in Table 3, all research variables showed substantial improvement following the implementation of the Deep Learning–based digital projects. The greatest improvement was observed in ethical digital communication, which increased by 43.44 percentage points. Meanwhile, Civic Disposition and Sport Character each improved by 35.93 percentage points. Overall, the students' mean score increased from 45.84% to 84.27%, representing a transition from the moderate category to the very high category.

These findings indicate that the Deep Learning–based digital projects provided meaningful learning experiences by actively engaging students in problem identification, project planning, collaborative teamwork, the development of digital products, and reflective learning activities. Through these authentic learning experiences, students were able to strengthen their civic attitudes, develop positive sport character, and enhance their ability to communicate ethically and responsibly in digital environments.

Source: Research Data

The implementation of the Deep Learning–based digital projects resulted in notable improvements across all research variables. Civic Disposition increased from 63.25 to 81.47, Sport Character improved from 65.18 to 83.26, and ethical digital communication rose from 61.94 to 84.02. The highest post-intervention achievement was observed in ethical digital communication, indicating that students' active involvement in developing digital content, participating in collaborative discussions, and presenting their projects effectively enhanced their ability to communicate in a polite, well-reasoned, and responsible manner within digital environments.

The improvement in Civic Disposition indicates that the Deep Learning–based digital projects effectively strengthened students' sense of responsibility, participation, tolerance, and respect for diverse perspectives. This finding is consistent with Branson (1998), who argued that Civic Disposition is developed through participatory experiences and democratic learning processes. Students' active involvement in decision-making, task allocation, and collaborative problem-solving throughout the project provided meaningful opportunities to practice and internalize civic values in authentic contexts. Similarly, the improvement in

Sport Character demonstrates the development of students' discipline, cooperation, responsibility, and commitment to fair play. This finding supports the perspective of Lumpkin (2008), who emphasized that sport character is cultivated through social experiences that promote sportsmanship, ethical behavior, and respect for others. The collaborative nature of the project encouraged students to work cooperatively, fulfill their responsibilities, and contribute constructively to achieving shared group objectives.

Ethical digital communication demonstrated the greatest improvement among the three research variables. This finding indicates that students' engagement in developing digital content, participating in collaborative discussions, and presenting project outcomes significantly enhanced their ability to use the Indonesian language in a polite, responsible, and appropriate manner within digital environments. The results are consistent with Gilster's (1997) concept of digital literacy, which emphasizes the importance of using digital technologies critically, ethically, and responsibly. Overall, the findings suggest that Deep Learning–based digital projects are effective in integrating the development of Civic Disposition, Sport Character, and ethical digital communication within a single learning experience. These results further reinforce previous studies demonstrating that project-based learning enhances collaboration, communication, social responsibility, and the development of twenty-first-century competencies by engaging students in authentic, meaningful, and reflective learning activities.

Conclusion

The findings of this study demonstrate that Deep Learning–based digital projects effectively strengthen students' Civic Disposition, Sport Character, and ethical digital communication through their active engagement in problem identification, collaborative learning, digital product development, project presentation, and reflective learning activities. These experiences foster the development of responsibility, tolerance, cooperation, fair play, and the ability to communicate politely and responsibly in digital environments. Accordingly, Deep Learning–based digital projects represent an effective and relevant instructional alternative for promoting character development and twenty-first-century competencies among Generation Z students. Beyond enhancing students' social skills and character, this approach provides more meaningful learning experiences by actively involving learners in solving authentic problems closely related to their daily lives. The integration of civic values, sport character, and ethical digital communication within a single learning framework demonstrates that character education can be implemented in a holistic and sustainable manner. Therefore, the implementation of Deep Learning–based digital projects has considerable potential as an innovative pedagogical approach for developing students who are morally grounded, adaptable, collaborative, and responsible citizens capable of navigating the challenges of the digital era.

References

Amalia, R., Mulyanti, E., Nurahma, S. S., & Lathifah, Z. K. (n.d.). *Analisis Dampak Pendekatan Deep Learning terhadap Peningkatan Kedisiplinan Siswa Sekolah Dasar*. *4*(2025), 180–191.

Darwis, M., Azizah, N., & Rofiqoh, S. (2025). *Peran Pembelajaran Berbasis Proyek Terhadap Pengembangan Keterampilan Berpikir Kritis Siswa*. *2*, 1–7.

Dewi, K., Putri, N., & Silvia, F. (2021). *Penguatan Disiplin Siswa Melalui Pembelajaran Pendidikan Pancasila Dan*. *1*(4), 118–125.

Futsal, E. (2025). *Implementasi Program Sportivitas untuk Penanaman Karakter Siswa*. *4*(2), 10750–10757.

Haditsa, H. Q. N., Isnan, I. R., Harsing, H., Supiana, S., & Qiqi, Q. Y. Z. (2025). Inovasi Kurikulum Dan Teknologi Pembelajaran (*Deep Learning*). *EduTeach : Jurnal Edukasi Dan Teknologi Pembelajaran*, *6*(02), 134–143. https://doi.org/10.37859/eduteach.v6i02.9487

Ihsan, A., Alimsyah, A. S., Raswadi, M. D., & Alim, B. (2025). *Internalisasi Nilai-Nilai Olahraga dalam Pembentukan Karakter Siswa MAS IMMIM Kota Makassar*. *5*, 228–235.

Journal, S. P. O. R. T. (2019). *MODEL PENDIDIKAN OLAHRAGA DALAM MENINGKATKAN SIKAP SPORTIVITAS Didik Subhakti Prawira Raharja Universitas Majalengka I . PENDAHULUAN Sportivitas merupakan kata yang senantiasa hadir dalam suatu pertandingan olahraga , bahkan dalam suatu venue olahraga tul*. *3*(1), 29–36.

Pattimura, U., Ambon, K., & Maluku, P. (2024). *Penguatan Civic Disposition (Watak Kewarganegaraan) di Sekolah Menengah Pertama Negeri 21 Ambon Dalam Mempersiapkan Generasi Muda di Era Revolusi 5 . 0*. *2*(1), 336–342.

Pembelajaran, E., & Islam, P. A. (2025). *Analisis Pendekatan Deep Learning untuk Meningkatkan Efektivitas Pembelajaran PAI di SMKN Pringkuku*. *5*, 866–879.

Prasasty, A. T., Handayani, Y., & Suharyati, H. (2025). *Pendekatan Konstruktivisme : Meningkatkan Hasil Belajar Melalui Pembelajaran Aktif di Sekolah*. *8*(1994), 2048–2054.

Subroto, D. E., Wirawan, R., & Rukmana, A. Y. (2023). *Implementasi Teknologi dalam Pembelajaran di Era Digital : Tantangan dan Peluang bagi Dunia Pendidikan di Indonesia*. *01*(07).

Triayomi, R., Murwanto, P., Wibagso, S. S., & Kurniawati, A. F. (2025). *JURNAL CEMERLANG : Pengabdian pada Masyarakat PENDAMPINGAN PEMBELAJARAN MELALUI PENDEKATAN DEEP LEARNING DAN LITERASI DIGITAL DENGAN JURNAL CEMERLANG : Pengabdian pada Masyarakat*. *8*(1), 9–24.

Undari, R., Muthali, A., & Prasetiyo, W. H. (2022). *Jurnal Penelitian Ilmu-Ilmu Sosial Etika komunikasi siswa dalam pembelajaran online : Studi kualitatif pada pembelajaran PPKn*. *3*(1), 74–89.

Usman, A., & Khoerunnisa, K. (2025). *Jurnal Bhakti Karya dan Inovatif Strategi Berkomunikasi Di Era Digital Bagi Generasi Z SMP Bina Mulya Bandung Jurnal Bhakti Karya dan Inovatif*. *5*(2), 112–118.