

The Digital Native Approach in P5 Exhibitions: Implementation of the Merdeka Curriculum in Elementary Schools

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Abstract: This study aims to describe the integration of a digital native approach in P5 exhibitions, analyze its contribution to the development of the Pancasila Student Profile dimensions, and identify the supporting and inhibiting factors for its implementation. This study employed a qualitative approach with a single case study design conducted at SDI Aulia Prambon, Sidoarjo. Data were collected through participatory observation, in-depth interviews, and document analysis, then analyzed using the interactive model of Miles, Huberman, and Saldana, and validated through source and method triangulation. The findings identified four forms of digital native integration in the P5 exhibition, namely interactive digital presentations, creative video production, QR code utilization, and project social media, with the most significant contributions to the critical thinking, independence, and creativity dimensions of the Pancasila Student Profile, as well as the cooperation (gotong royong) dimension, which emerged organically through the division of production roles. Supporting factors included student enthusiasm, parental support, and school facilities, while the inhibiting factor was related to the misuse of gadgets for non-academic activities. This study concludes that integrating digital natives requires structured pedagogical scaffolding to transform students' digital habits into meaningful academic achievements.

Keywords: Digital native, elementary school, merdeka curriculum, the project for strengthening the Pancasila student profile



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A. Introduction

Along with technological development, the national education system has also undergone curriculum transitions. Previously, Indonesia implemented the 2013 Integrated Thematic Curriculum, which was subsequently replaced by the Emergency Curriculum during the pandemic period. As conditions improved in the post-Covid-19 period, the government officially introduced the Merdeka Curriculum. In the 2022/2023 academic year, the Ministry of Education, Culture, Research, and Technology officially

implemented the Merdeka Curriculum (Alimuddin, 2023). This curriculum change and development is highly important, as the curriculum must adapt to prevailing conditions, take students' developmental stages into account, and remain relevant to the needs and demands of the times. This transformation introduces the concept of "freedom" (*kemerdekaan*), which provides room for schools, teachers, and students to innovate freely and learn independently and creatively (Suzetasari, Hidayati, & Zakiyah, 2023). The orientation of education is no longer centered on achieving minimum grades, but instead emphasizes the development of talents and knowledge, acknowledging that each student possesses different characteristics (Armadi & Kumala, 2023).

The main characteristic of the Merdeka Curriculum is the realization of competency and character development through project-based learning, known as the Project for Strengthening the Pancasila Student Profile (P5) (Angga, Asep Herry Hernawan, & Tita Mulyati, 2023). P5 is implemented outside of intracurricular class hours with a special time allocation. It concludes with a reporting activity or work exhibition that serves as a tangible manifestation of students' learning outcomes. The P5 approach allows students to learn in a more informal, flexibly structured, and interactive atmosphere, while providing ample opportunities to explore actual issues in their surrounding environment actively (Lestari, Asbari, & Yani, 2023). According to the Ministry of Education and Culture (Kemendikbud), the Pancasila Student Profile consists of six core dimensions: (1) faith in God Almighty and noble character, (2) independence, (3) cooperation (*gotong royong*), (4) global diversity, (5) critical thinking, and (6) creativity. In elementary schools, the fifth-grade project is delivered through seven themes: sustainable lifestyle, local wisdom, Unity in Diversity (*Bhinneka Tunggal Ika*), building body and soul, the voice of democracy, entrepreneurship, and engineering and technology (Kemendikbudristek, 2024).

Studies on the implementation of P5, the integration of technology/digital elements in the Merdeka Curriculum, and the characteristics of the digital generation in elementary schools during the 2021–2026 period reveal three research streams developing in parallel. According to studies conducted by Armadi and Kumala (Armadi & Kumala, 2023), Rasworo and Ramadhan (2024), and Harjanti et al. (Harjanti, Suhartono, Ardiansyah, & Suryandari, 2026), the first stream focuses on the practice and governance of P5 implementation in elementary schools, encompassing theme planning, character strengthening, and project management. These studies consistently show that P5 can strengthen the dimensions of the Pancasila Student Profile effectively. However, the work exhibition is still generally portrayed as a ceremonial activity based on physical products and conventional presentations, without being explicitly linked to students' learning characteristics as digital natives.

According to Consoli et al. (2024), Murdiani and Wijayanti (Janti, Wijayanti, Markhamah, & Utama, 2025), and Khotimah et al. (Sirajuddin, Yoenanto, & Andriani, 2026), the second stream examines the integration of digital technology within the Merdeka Curriculum more broadly, including teachers' digital literacy readiness, the

quality of technology integration on student engagement, the role of digital literacy in P5 implementation, and digital infrastructure gaps across regions. Findings within this stream confirm that technology integration contributes positively to learning engagement and the achievement of P5 dimensions; however, these studies are generally macro in scope or focus on a single specific digital practice, such as digital literacy or e-modules, and have thus not yet systematically mapped the various patterns of digital integration within the P5 exhibition itself.

The third stream discusses the characteristics of the digital native generation, including Generation Z and Generation Alpha, as learners with visual, interactive, and technology-based preferences. Suryadi (Matang et al., 2023) first introduced the concept of digital natives to describe the generation that has grown up alongside digital technology since birth, possessing ways of thinking, learning, and communicating that differ from previous generations. Current elementary school students belong to Generation Z and the early cohort of Generation Alpha, whose daily interactions are almost entirely mediated by digital devices (Alruthaya, Nguyen, & Lokuge, 2021) while more recent studies indicate that generalized claims about digital natives need to be tested contextually, as students' digital competencies still vary according to their learning environments (Reid, Button, & Brommeyer, 2023). Studies within this stream are theoretically rich, but are mostly conceptual or conducted within higher education contexts, and thus have not yet been widely tested empirically in project-based learning practices in Indonesian elementary schools.

These three research streams show that knowledge concerning P5 practices, technology integration within the Merdeka Curriculum, and digital native characteristics has each developed independently. However, no study has explicitly mapped the interrelation among all three within a single context, namely how students' characteristics as digital natives are concretely manifested in the forms and patterns of digital integration within P5 exhibitions in elementary schools. Conditions in the field reinforce the urgency of this gap: the implementation of P5 in elementary schools still tends to be conventional and symbolic, as many P5 exhibitions still rely on oral presentations, manual posters, and handicraft products without integrating digital media that align with digital natives' learning preferences (Sitorus, 2024), such that students' creative potential and digital skills have not been optimally channeled in activities that should serve as a platform for expressing their competencies, according to Virijai et al. (Mellyzar, Rochintaniawati, Riandi, Fakhrah, & Virijai, 2025) and Lutfiyah et al. (Lutfiyah, Fardani, & Pratiwi, 2025). The gap between students' learning characteristics and the current design of P5 exhibitions constitutes a research gap that needs to be empirically examined.

The urgency of this study is further reinforced by the fact that the P5 exhibition represents the culmination of the entire project process undertaken by students, such that the quality of its implementation reflects the depth of mastery of the Pancasila Student Profile dimensions while simultaneously serving as an indicator of the successful implementation of the Merdeka Curriculum at the education unit level (Nisa, Wijaya,

Istiningsih, Sumardi, & Fahrudin, 2024). If the P5 exhibition is not designed in alignment with the characteristics of digital native students, the transformative value of P5 risks not being maximally achieved. As synthesized above, previous research on P5 has largely treated three topics project management (Mellyzar et al., 2025), character formation (Imtinan et al., 2022), and digital technology integration in general (Janti et al., 2025), as separate, standalone studies, such that the dimension of digital native approach integration within the P5 exhibition has not been systematically examined.

The uniqueness of this study lies in its contextual and systematic mapping of digital generation integration patterns within the P5 framework of the Merdeka Curriculum at the elementary school level, which has not been undertaken by previous research: it is contextual because it is derived directly from the actual practice of a P5 exhibition at a single education unit, and it is systematic because it is constructed based on the digital native theoretical framework combined with the six dimensions of the Pancasila Student Profile, thereby producing a categorization of digital native integration forms that can be replicated or compared in the context of other elementary schools (Prensky, 2001).

Based on the above background, this study aims to: (1) describe the forms of digital native approach integration in P5 exhibitions in elementary schools, (2) analyze the contribution of the digital native approach to the development of students' Pancasila Student Profile dimensions, and (3) identify the supporting and inhibiting factors of its implementation. The novelty of this study lies in its contextual and systematic mapping of digital native integration patterns within the P5 framework of the Merdeka Curriculum at the elementary school level, which has not been undertaken by previous research.

B. Method

This study employs a qualitative approach with a single case study design. This design was chosen because the researcher aims to obtain an in-depth understanding of the phenomenon within its natural context (Creswell & Poth, 2025), namely the practice of P5 exhibitions integrated with a digital native approach in elementary schools. The single case study design allows for in-depth and detailed data exploration within one context without sacrificing the depth of contextual understanding (Yin K. Robert, 2018). The study was conducted at *Sekolah Dasar Islam* (SDI) Aulia Prambon Sidoarjo, an Islamic elementary school that has implemented the Merdeka Curriculum since the 2023 academic year. The research location was selected using a purposive sampling technique based on the following criteria: (a) having implemented at least two P5 cycles, (b) possessing adequate information technology facilities, and (c) having conducted a P5 exhibition. The research subjects consisted of selected informants, including the school principal, the fifth-grade teacher, and twenty-five fifth-grade students. These subjects were deliberately selected for their active involvement in implementing the Merdeka Curriculum.

Data collection was carried out using three techniques. First, participatory observation was conducted with all 27 participants across two meetings during the period of May 20–31, 2025, with an average duration of 60–90 minutes per session, covering the project planning stage, the content production process (making fruit salad, video recording,

and editing), through to the culminating exhibition, using a structured observation guide containing indicators of digital native integration. Second, in-depth interviews were conducted with seven informants (the school principal, the fifth-grade teacher, and five representative students) across a total of seven interview sessions, with durations ranging from 20–40 minutes for students and 40–60 minutes for the principal and teacher, using a semi-structured interview guide developed based on the digital native theoretical framework and the dimensions of the Pancasila Student Profile (Matang et al., 2023). Third, document analysis encompassed the P5 module, the digital portfolios of 25 students, five group project videos, as well as photographic documentation and screenshots of the project's social media accounts throughout the implementation period.

The observation and interview guide instruments were validated through two stages prior to their use in the field. First, content validity was reviewed by three experts (expert judgment), consisting of two elementary education lecturers and one Merdeka Curriculum practitioner, using the Content Validity Ratio (CVR), yielding an average CVR score of 0.86, above the required minimum value (0.62 for three raters), such that all instrument items were declared content-valid. Second, a pilot study was conducted with one parallel class not included as the main research subjects, involving five students and one teacher, to test the readability and linguistic clarity of the instrument items; the results of this trial were used to revise three interview questions deemed ambiguous by the pilot participants.

C. Results and Discussion

Results

Thematic analysis of the participatory observation data yielded three main themes, which are presented sequentially in the following section.

Forms of Digital Native Approach Integration in the P5 Exhibition

The initial step in this study involved interviews with key stakeholders, including the fifth-grade teacher, school leadership, and students. Based on the interview results with the fifth-grade teacher, project planning began with an analysis of student characteristics, all of whom belonged to the digital native generation. The teacher stated: "Most of our students already have their own devices at home. They are highly skilled at operating camera applications and social media. Therefore, we decided not to simply create a physical product, but to document it as creative content."

The integration of the digital native approach under the theme "Building Body and Soul" (Bangunlah Jiwa dan Raganya), with the specific topic "I Need Healthy Food," is as follows. The teacher assigned a project titled "Healthy Food That Can Be Made at Home." The project was scheduled to run for two weeks, from May 20 to May 31, 2025. At the beginning of the fifth-grade session, the teacher provided an introduction to healthy foods that need to be consumed daily. Students were then divided into five groups, each consisting of five members. They observed their surrounding environment and began identifying the types of healthy food they would prepare. After a group discussion, they agreed to make fruit salad because of its taste and practicality, which generally consists

of a mixture of fruits combined with sweetened condensed milk, mayonnaise, and cheese. The combination of fruit and dressing in a single bowl makes this dish a favorite among students.

The students were then actively engaged in designing the video production flow (a simple storyboard) and dividing roles within the group (actors, camera operator, and editor). This model encouraged students to engage in project-based learning and gain direct learning experience while working on their P5 project. In this process, students took on the roles of video creator, actor, and editor of the content they produced; this division of roles was consistently observed across all five project groups studied.

According to the fifth-grade homeroom teacher, this theme was chosen because the snacks and foods available both at school and at home vary widely in type, color, taste, and ingredients. Students need to understand which types of food are healthy or unhealthy for their bodies, as well as the reasons why they need to consume healthy food. The healthy food product created in this project was fruit salad. During the planning stage, students sourced ingredients and prepared the fruit salad until it was ready to be served. Each stage of the process was documented and compiled into video clips, which were then uploaded to YouTube. The final video was displayed using the school's LCD projector, allowing students to observe the results and practice presenting their work to an audience.

Table 1. Forms of Digital Native Integration in the P5 Exhibition

Form of Integration	School Site
Digital Presentation	Yes (Canva)
Creative Video Production	Yes
QR Code at Booths	Yes
Project Social Media	Yes (Instagram)

Observation results at the elementary school research site identified four main forms of digital native approach integration in the P5 exhibition. First, interactive digital presentations using Canva, PowerPoint, and Google Slides software, independently designed by students, featuring visual narratives that combined text, infographics, and hyperlinks to related online content. Second, the production of short creative videos (1–3 minutes) documenting the project implementation process from the research stage through to the final product, edited using the CapCut and InShot applications by fifth-grade students. Third, the use of QR (Quick Response) codes attached to exhibition booths, enabling visitors to access additional digital content, such as documentation videos, digital survey results, and links to the project's social media. Fourth, the use of social media as a project reporting platform, in which the school created a dedicated P5 Instagram account managed by students to document and publish their work. As summarized in Table 1, all four forms of integration were present simultaneously across the research site, not merely within a subset of project groups, indicating that digital native integration in the P5 exhibition at this site was comprehensive across the levels of

presentation, process documentation, visitor interaction, and work publication, rather than being limited to a single aspect of the exhibition.

The Contribution of the Digital Native Approach to the Dimensions of the Pancasila Student Profile

Analysis of interview and observation data shows that the integration of the digital native approach in the P5 exhibition made varying contributions to the six dimensions of the Pancasila Student Profile, namely: 1) Faith, Piety in God Almighty, and Noble Character; 2) Global Diversity; 3) Mutual Cooperation (Gotong Royong); 4) Independence; 5) Critical Reasoning; and 6) Creativity. The dimensions most significantly affected were critical reasoning, creativity, and independence. When students designed digital content for the exhibition, they actively curated information, evaluated online data sources, and synthesized knowledge into communicative formats; this pattern was repeatedly observed across all five project groups examined by the researcher.

The implementation process was carried out through the making of fruit salad, which was independently documented by students using smartphones. The researcher observed that students displayed a natural digital literacy skill set. They not only captured images but also collaboratively edited videos. The result of this activity was a creative video work, which was subsequently uploaded to the school's YouTube channel. As the culmination of the activity, students presented their work using an LCD projector. During the question-and-answer session, the dynamics of students' critical, independent, and creative thinking were recorded, as shown in the following table:

Table 2. Dynamics of Student Thinking in the Question-and-Answer Session

No	Student Question	Presenting Group's Answer	P5 Indicator Analysis
1	Why did we use orange and dragon fruit?	Oranges contain Vitamin C for immunity, so we do not get sick easily.	Critical Thinking: Able to link ingredients to their biological function.
2	Are chiki (cheese puffs) healthy?	No, because they contain MSG. Eating too much can make you thirsty and dizzy.	Independence: Able to independently sort out nutritional information
3	How did you make your fruit salad look different from other groups?	We arranged the fruit pieces to form a flag pattern and made our own honey yogurt sauce so the presentation would look unique and not the same as other groups.	Creative Reasoning: Able to generate original ideas and work in designing product presentation

Table 2 shows that all three student questions recorded during the question-and-answer session were addressed by the presenting group with explanations referring to scientific grounding (the vitamin C content in oranges), health considerations (the MSG content in snack foods), and originality of presentation (the flag pattern and self-made dressing). This pattern of responses aligns with the three dimensions identified as most prominent in the previous section, namely critical reasoning, independence, and creativity, thereby indicating that the question-and-answer session in the P5 exhibition

functioned as a space in which these three dimensions were tangibly manifested in students' oral interactions, not merely implicit in the final exhibited product.

According to the fifth-grade homeroom teacher, the topic "I Need Healthy Food" was chosen because of the wide variety of types, colors, tastes, and ingredients of snacks available both at school and at home, making it necessary for students to understand which types of food are healthy or unhealthy for their bodies. During the observation, the researcher noted that the use of mobile phones and social media had already become a routine part of fifth-grade students' daily lives. Hence, their integration into the P5 project proceeded without significant technical or psychological barriers: students were able to operate the camera, video editing applications, and the project's social media account immediately, without requiring additional training from the teacher.



Figure 1. Digital Native Simulation

Figure 1 illustrates the transition of students' roles from digital consumers to producers of educational content. The key significance of this image lies in the emergence of elements of Mutual Cooperation (*Gotong Royong*) and Creativity. Students did not work individually; rather, there was a systematic division of tasks (one student holding the product, another recording, and another directing the styling). This demonstrates that when appropriately guided within the P5 framework, devices become scaffolding tools that enhance social interaction. Based on these observations, the P5 project was carried out actively, critically, and creatively. Students felt highly motivated because they were able to create educational videos and share their learning experiences both online and offline. This role transformation was concretely evidenced through three forms of qualitative evidence documented during the study (see Figure 2).

Figure 2 presents a map of qualitative evidence illustrating how students' roles transformed from consumers to producers of digital content in the P5 exhibition, categorized into three main dimensions. In the collaboration dimension, evidence is reflected in the systematic division of roles within the group (actors, camera operator, and editor) as well as the collaborative video editing process, culminating in a final presentation using an LCD projector. In the creativity dimension, evidence is seen in the production of original video works uploaded to a YouTube channel (<https://youtu.be/BiFBG0OKh4I?si=xkWvGGSz3rUdm5TS>), independent storyboard

design prior to production, and the composition of visual narratives in digital presentations combining text, infographics, and hyperlinks. Meanwhile, in the digital literacy dimension, evidence is shown through students' ability to independently operate video editing applications such as CapCut and InShot, their use of QR codes at exhibition booths to direct visitors to additional digital content, and their management of the project's Instagram account for publishing their work. These three sets of evidence stem from data triangulation obtained through the researcher's observations during the implementation process, interviews with the fifth-grade teacher, and documentation of student products (Table 1 and five P5 project video works). Overall, this evidence confirms that the shift in students' roles from mere consumers to producers of educational content is not merely a claim, but a pattern consistently observed throughout the project's implementation.

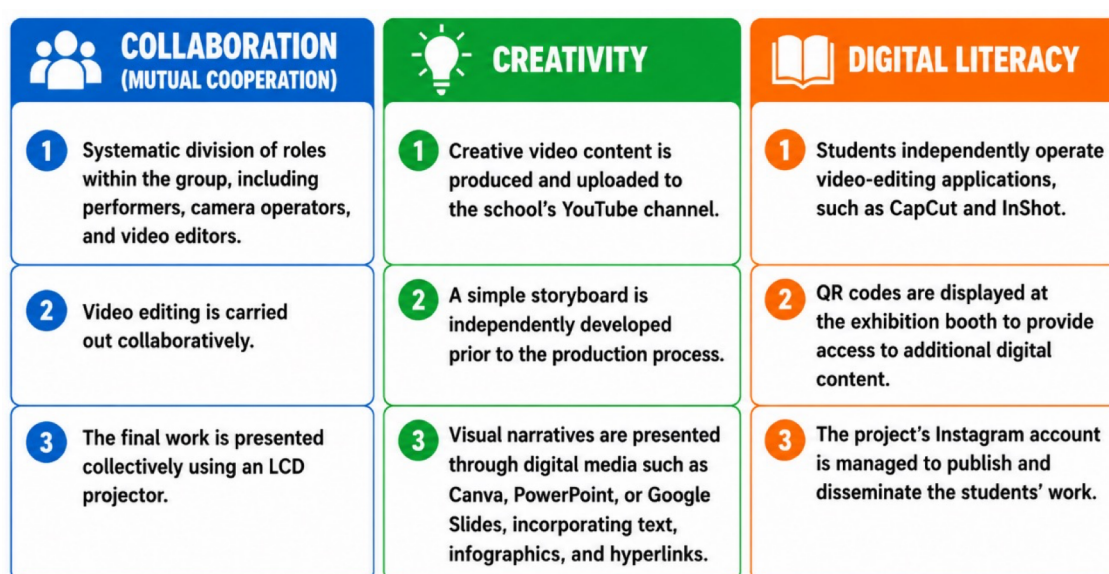


Figure 2. Transformation of Students' Roles

Supporting and Inhibiting Factors

Supporting factors for implementing the digital-native-based Merdeka Curriculum in the P5 project exhibition were confirmed through observations and interviews with the fifth-grade teacher. The teacher reported that students displayed high enthusiasm when learning was centered on the use of digital tools, particularly mobile phones. This enthusiasm was further supported by parents' financial capacity and awareness in providing technological devices. In addition, adequate school facilities, such as the availability of an LCD projector, enabled students to transform their P5 projects into audiovisual presentations in front of exhibition visitors.

From interviews with students, it was found that digital-based learning was considered both challenging and enjoyable. Using mobile phones, students were able to creatively take the necessary photos and edit them using various available applications. Furthermore, mobile-based social media was regarded as a tool for honing communication skills, gathering information, and broadening knowledge and insight. Thus, mobile phones were considered to have a positive impact on learning.

Inhibiting factors in implementing the Merdeka Curriculum through the digital native approach in the P5 project exhibition, based on interviews with the fifth-grade teacher, included students frequently using their phones to play online games or access social media applications such as TikTok, Facebook, WhatsApp, YouTube, and Instagram. The parents of fifth-grade students also raised this concern. Students who had already become addicted to their phones often struggled to balance study time and leisure time, tending to avoid studying. In class, these students appeared tired and drowsy as a result of staying up late playing games on their phones.

Discussion

This section presents the main findings, interprets them based on relevant theories, and then compares them with previous research to demonstrate the position of these findings within existing knowledge.

The Digital Native Approach in the P5 Exhibition

The findings of this study identified four forms of digital native approach integration in the P5 exhibition, namely interactive digital presentations, creative video production, the use of QR codes, and the use of project social media. These four forms were present simultaneously at the research site and were not limited to a single aspect of the exhibition. This finding aligns with Prensky's (2001) argument that generations who grow up alongside digital technology have a natural tendency to think and communicate through digital media. Nevertheless, the emergence of these four forms of integration cannot be explained solely by generational factors. Creative video production, for instance, only became pedagogically meaningful when students were given a clear production structure, ranging from storyboard preparation, the division of exhibition roles (actor, camera operator, and editor), to the joint editing process. This pattern is consistent with Gaston and Havard's (2019) four-phase model of situational interest, which shows that active student involvement in collaborative video production can gradually trigger and sustain elementary school students' learning interest, rather than emerging simply because students are accustomed to holding devices. In other words, students' digital native potential needs to be directed through structured task design in order to be transformed into meaningful learning engagement.

The use of QR codes at exhibition booths further reinforces the interpretation (Alnajdi, 2022) that QR codes combined with augmented reality elements can improve students' learning performance because these codes bridge physical space with richer additional digital content. A similar function was observed in this study, in which QR codes at the booths directed visitors to documentation videos and digital survey results, so that the exhibition no longer stopped at the physical product alone but expanded into a learning space that united direct and digital experience. The selection of a topic close to students' daily lives, in this case the issue of healthy food, is also in line with the idea of Kalla et al. (2022) that project-based curricula become more meaningful when designed

to depart from real issues around students, rather than merely abstract topics far removed from their everyday experience.

Compared with previous research, this finding is consistent with Consoli et al. (Consoli et al., 2025) who showed that the quality of technology integration, not merely its availability, is positively associated with students' behavioral engagement and digital competence. The four forms of integration identified in this study represent a concrete manifestation of such "integration quality" within the context of the P5 exhibition. This study also extends the findings of Murdiani and Wijayanti (2025), who discussed digital integration in strengthening the Pancasila Student Profile and elementary school teachers' technology curricula in general, but had not yet mapped in detail the various forms of digital integration within the P5 exhibition itself. In doing so, this study helps fill the gap noted by Chamidah et al. (2024) in their bibliometric analysis, namely the still-limited empirical studies contextually linking project-based learning with 21st-century skills at the elementary school level.

It should be noted that the emergence of these four forms of integration was also supported by the school's relatively adequate digital capacity. Timotheou et al. (2022) in a broad-scale literature review, emphasized that the success of school digital transformation depends not only on device availability but also on infrastructure readiness, teacher competence, and comprehensive policy support. This condition aligns with the findings of Sun et al. (2024) that elementary school students in urban and rural areas of China exhibit markedly different levels of digital media literacy, particularly in their ability to create and disseminate content. Therefore, the four forms of integration identified in this study are unlikely to appear in the same pattern in schools with limited infrastructure, and these findings should be generalized with caution.

Its Contribution as Pancasila Students

The second finding shows that digital native integration made the most significant contribution to three dimensions, namely critical reasoning, independence, and creativity. In contrast, the dimension of cooperation (*gotong royong*) emerged organically through the division of technical roles in digital content production. This pattern can be explained through a social constructivist learning perspective, in which knowledge and skills are built through social interaction and meaningful activity, rather than received passively. When students designed storyboards, selected camera angles, and edited videos together, they indirectly practiced evaluating information, making creative decisions, and negotiating roles with group members. It is this process that gave rise to the dimensions of critical reasoning, independence, and cooperation simultaneously, not because the three were taught separately, but because they were inherent in the digital production activity itself. A similar phenomenon was noted by Gaston and Havard (2019) who found that collaborative video production encourages students to become functionally interdependent because the complexity of the task demands role specialization, such that collaboration emerges as a logical consequence of the task structure rather than merely as a teacher's instruction.

This finding is consistent with Nisa et al. (2024), who found that the Pancasila Student Profile develops most optimally when character values are authentically integrated into project activities, rather than artificially inserted through lectures or direct instruction. This finding also aligns with Harjanti et al. (2026), who asserted that the strengthening of the Pancasila Student Profile is most clearly observed when students are directly involved in the production process of a work. In the context of the digitally-integrated P5 exhibition, this direct involvement was realized through clear technical roles such as actor, camera operator, and editor, so that the character dimensions were reflected not only in the final product but throughout the entire production process.

On the other hand, this study extends the caution raised by Reid et al. (2023) regarding the digital native myth, which asserts that the digital competence of younger generations cannot simply be generalized and remains dependent on the accompanying learning context. The findings of this study show that the critical reasoning and creativity competencies that appeared strong among students were not merely inherent traits of the digital native generation, but rather the result of pedagogical scaffolding designed by the teacher, ranging from the introduction of material and group formation to the structured question-and-answer session during the presentation. Thus, this study does not contradict the caution raised by Reid et al. (2023). Rather, it provides empirical evidence of the specific contextual conditions under which digital native potential is genuinely realized into achievements across the dimensions of the Pancasila Student Profile.

Supporting and Inhibiting Factors in Implementation

The third finding identified three supporting factors, namely student enthusiasm, parental support, and the availability of school facilities, as well as one main inhibiting factor in the form of device misuse for non-academic activities such as playing games and accessing social media outside the context of the project. Student enthusiasm toward digital-tool-based learning can be explained through learning motivation theory, in which activities relevant to students' daily lives tend to generate higher emotional engagement than activities that feel unfamiliar to them. Because devices and social media have already become a routine part of fifth-grade students' lives, their integration into the P5 project felt natural and did not require additional training.

As shown by Suryadi et al. (2023), the current generation of students tends to be more skilled at navigating technology than their parents' generation. This finding is consistent with Saputra et al. (2023) who demonstrated that the integration of digital media significantly increases elementary school students' learning motivation, as well as Sujana et al. (2021), who noted that the majority of students prefer digital-based learning, particularly in the form of audiovisual content. Parental support in providing devices further reinforces the findings of Ilmiah et al. (2021) which argue that parents' role as infrastructure providers is an important variable for children's successful digital adaptation, while the use of the LCD projector aligns with evidence from Harjanti et al. (2026) stating that audiovisual approaches are more effective at sustaining student attention compared to conventional methods.

The inhibiting factor of device misuse requires a more in-depth explanation, particularly regarding the symptom of students appearing tired and drowsy in class due to staying up late playing games. Thomas and Stevic (2024), in a two-wave panel study of children aged 10 to 14, found that nighttime device use is associated with increasing attention disturbances in children over time, which in turn is associated with declining academic performance, both subjectively perceived and objectively measured. Karsay et al. (2022) further found that device use before bedtime is linked to physical fatigue in children, and that parental mediation plays an important role in breaking this pattern. These two studies provide a stronger mechanistic explanation for the fatigue and drowsiness symptoms observed among students in this study than simply attributing them to device addiction in general terms.

This finding is consistent with Ditaningsih et al. (2021) who argued that digital advancement is a challenge that must be managed rather than avoided, while emphasizing the importance of teachers' pedagogical readiness in facing the challenges of technology integration. The mitigation strategy proposed in this study, namely structurally guiding students from consumers to producers of content, aligns with the findings of Gusti et al. (2026) that strengthening character through structured digital literacy is effective in minimizing cyber behavioral deviations among elementary school students. The principle of parental mediation combining dialogic guidance with limits on device usage time, as pioneered by Livingstone and Helsper (2008), is now reinforced by more recent evidence from Karsay et al. (2022) regarding its link to physical fatigue in children. Concurrently, disparities in device access, which contribute to these obstacles, align with findings by Sun et al. (2024) regarding the regional digital divide in Indonesia; these studies underscore that the successful integration of "digital natives" into the P5 program depends inextricably on equitable access to technology and parental guidance at home.

Overall, the three findings above complement and reinforce one another, affirming the contribution of this study. Theoretically, this study offers a conceptual model of digital native approach integration in the P5 exhibition that links the forms of integration, the character dimensions formed, and the contextual factors influencing them, a linkage that, according to Chamidah et al. (2024) and Stringer et al. (2022), has not been extensively mapped in an integrated manner in previous research. Practically, these findings provide an empirical foundation for the Ministry of Education, Culture, Research, and Technology, as well as regional education offices, to develop teacher training modules that explicitly integrate the digital native approach into the design and assessment of P5 exhibitions.

D. Conclusion

This study concludes three main points. First, there are four concrete forms of digital native approach integration in the P5 exhibition at the elementary school level, namely interactive digital presentations, creative video production, the use of QR codes, and the utilization of project-based social media. These forms of integration are not uniform, but are influenced by the school's technological capacity, teachers' digital

competence, and student creativity. Second, the integration of the digital native approach makes the most significant contribution to the dimensions of Critical Reasoning and Independence within the Pancasila Student Profile. Third, the implementation of this approach is influenced by factors such as teachers' digital pedagogical competence, access to technological devices, and the availability of assessment rubrics that accommodate digital content.

The theoretical implication of this study is the need to broaden the theoretical framework of digital natives from a descriptive-generational context toward a pedagogical-operational framework capable of guiding the design of project-based learning in the era of the Merdeka Curriculum. The practical implications include: (1) the development of operational guidelines for digital-native-approach-based P5 exhibitions by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek); (2) the strengthening of teacher training programs in digital pedagogical literacy specifically for P5; and (3) the formal integration of digital content assessment rubrics into P5 assessment instruments. Future research is recommended to test the effectiveness of the digital P5 exhibition model experimentally and to extend its scope to include Madrasah Ibtidaiyah (Islamic elementary schools).

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