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The Use of Canva Media to Improve Students' Higher-Order Thinking Skills in Indonesian Language Learning

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Abstract: This study aims to describe the use of Canva as an instructional medium in Indonesian language learning to enhance higher-order thinking skills among elementary school students. The research employed a qualitative approach with a case study design conducted at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi in West Jakarta. Data were collected through interviews, observations, and documentation, and were analyzed using the interactive model of Miles, Huberman, and Saldaña. The findings show that teachers implemented the functions of instructional management comprehensively, including needs-based lesson planning, organizing learning tools and student groups, conducting visual-media-based instruction using Canva, and evaluating both processes and products through formative feedback and portfolio assessment. Canva was found to assist students in identifying key information, analyzing reading content, and creating visual representations that support the development of higher-order thinking skills. This study highlights that the success of integrating digital media depends on appropriate instructional design and instructional management, enabling the reinforcement of students' visual literacy, creativity, and analytical abilities.

Keywords: Canva, Indonesian Language Learning, Higher-Order Thinking Skills, Digital Media, Elementary School.

INTRODUCTION

Twenty-first-century education demands fundamental changes in how students learn and how teachers teach. This transformation places Higher-Order Thinking Skills (HOTS) as core competencies that elementary students must master, particularly in Indonesian language learning. Higher-order thinking involves not only comprehension but also the ability to analyze, evaluate, and create ideas creatively and logically. In this context, innovative, technology-based, and student-centred learning is urgently required. Conventional learning, which is still dominated by lectures, often hinders the development of students' thinking capacity because it does not provide sufficient space for exploration, discussion, and knowledge production (Devi et al., 2021; Sukerti, 2020).

Ideally, Indonesian language learning in elementary schools should encourage students to read, interpret, connect information, and express ideas both orally and in writing. However, the reality shows that many students remain at lower levels of thinking due to teaching

approaches that do not offer enough cognitive stimulation. Teacher-centred models position students as passive recipients of information, whereas Indonesian language learning requires complex cognitive processes that can only develop through visualization, collaboration, and self-assessment learning activities (Suparlan, 2021). This condition highlights the need for innovative instructional approaches that promote active, creative, and critical learning through technology-enhanced media.

Another challenge in Indonesian language learning lies in the limited availability of instructional media that are engaging, interactive, and capable of stimulating higher-order thinking. Many teachers still rely on traditional media that lack strong visual stimulation and independent learning experiences. Meanwhile, various studies indicate that digital learning media can enhance motivation, participation, analytical abilities, and creativity (Boari et al., 2023; Ibrahim et al., 2024; Suranti & Ibrahim, 2024). Digital media enable students to explore information and construct understanding independently, making learning more meaningful and contextual.

Among the rapid development of educational technology tools, Canva has emerged as a visual design platform that enables teachers and students to create interactive, attractive, and easily comprehensible learning materials. Canva offers infographic, poster, presentation, video, and digital module features that can be adapted to various instructional needs (Pratama et al., 2023). The integration of Canva in Indonesian language learning is believed to enhance students' creativity, enrich learning experiences, and expand the visual representation of linguistic concepts (Mayer, 2009). Moreover, Canva allows students to generate their own digital products, enabling them not just to consume information but also to produce new knowledge.

Prior studies show that Canva improves student participation, creativity, and motivation in elementary schools (Idawati et al., 2022; Pramesti & Alwi, 2024). However, most research has emphasized affective outcomes and creativity, rather than students' higher-order thinking skills. Furthermore, earlier studies have not yet analyzed the role of Canva from the perspective of instructional management functions, leaving a gap that warrants attention. Integrating Canva into a management framework would provide a more comprehensive understanding of digital media planning, organizing, implementation, and supervision.

The novelty of this study lies in its use of Terry's POAC management model (Planning, Organizing, Actuating, Controlling) as an analytical framework to evaluate digital learning media integration using Canva to enhance HOTS in elementary students. By embedding Canva within instructional management practices, this study provides a systematic description of how teachers plan digital media use, organize student learning activities, implement creative instruction, and monitor students' cognitive progress.

The study was conducted at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi, West Jakarta two schools that have adopted Canva in Indonesian language learning but have different student characteristics and environments. This context allows an examination of varied practices and outcomes in promoting higher-order thinking. Therefore, this research addresses how planning, organizing, implementing, and controlling digital learning using Canva are carried out, and how these processes contribute to students' HOTS development.

Thus, this research has strong urgency to enrich the literature on digital media integration in Indonesian language learning in elementary schools, and to provide practical implications for teachers in strategically implementing Canva to improve students' cognitive skills. It is also expected to serve as a model for developing digital learning media aligned with 21st-century competence requirements.

METHOD

This study employed a qualitative approach with a case study design to gain an in-depth understanding of the use of Canva in enhancing Higher-Order Thinking Skills in Indonesian

language learning. The qualitative approach was selected because the research focuses on instructional processes and the experiences of teachers and students in real-world contexts. Creswell and Poth (2018) explain that qualitative methods enable researchers to explore meanings and dynamics that cannot be captured through quantitative techniques. A case study design was used because the implementation of Canva was examined intensively in two elementary schools with different characteristics, allowing a comprehensive exploration of instructional practices.

The study was conducted at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi, West Jakarta. Research participants included the principals, Indonesian language teachers for upper-grade classes, and students directly involved in Canva-based learning. Participants were selected using purposive sampling based on their involvement in Canva-integrated learning. This technique aligns with Miles, Huberman, and Saldaña (2014), who emphasize that qualitative participants should be selected based on their ability to provide rich and relevant data.

Data were collected through in-depth interviews, classroom observations, and documentation analysis. Interviews explored teachers' experiences in planning, organizing, and implementing Canva-based learning activities. Classroom observations examined how Canva was integrated into learning activities, including interaction patterns, design feature utilization, and student responses to visual media. Documents collected included lesson plans, student Canva products, learning activity photographs, and teacher reflective notes. This triangulation technique was applied to reinforce data credibility as suggested by Patton (2015).

In qualitative research, the researcher is the primary instrument responsible for collecting, interpreting, and validating field data. Supporting instruments included interview protocols, observation sheets, and document analysis forms. These instruments helped maintain data collection focus and ensure process consistency, in accordance with Lincoln and Guba's (1985) principle that flexible tools are needed to accommodate field dynamics.

Data trustworthiness was ensured using Lincoln and Guba's (1985) four criteria: credibility, transferability, dependability, and confirmability. Credibility was strengthened through source triangulation and member checking with teachers and principals. Transferability was ensured by providing detailed descriptions of school contexts. Dependability was maintained through an audit trail documenting each step of the research process. Confirmability was ensured by linking findings directly to original data such as interview transcripts, observation notes, photographs, and student work samples.

Data were analyzed using Miles, Huberman, and Saldaña's (2014) interactive model, which includes three stages: data reduction, data display, and conclusion drawing. Data were categorized based on POAC functions such as media planning, organizing learning activities, executing digital instruction, and monitoring students' progress. Data display was presented in thematic narrative forms supported with field quotations. Conclusion drawing was conducted iteratively to confirm consistency between emerging themes and field data. Analysis was conducted simultaneously with data collection to allow flexible adjustment to field dynamics.

The study was carried out from June to September 2025, covering preparation, data collection, data analysis, and report writing. This methodological approach is expected to provide a comprehensive description of the use of Canva in Indonesian language learning to enhance students' higher-order thinking skills.

RESULTS AND DISCUSSION

Planning the Use of Canva Media in Indonesian Language Learning to Enhance Students' Higher-Order Thinking Skills

The planning of Canva media integration at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi was carried out systematically to ensure that this digital platform could be used effectively to improve students' higher-order thinking skills. Teachers began the planning

stage by analyzing the Basic Competencies of Indonesian language learning that require interpreting texts, presenting information, and applying analytical thinking. This needs analysis aligns with York-Barr et al. (2021), who emphasized that instructional planning must be grounded in desired cognitive outcomes. At this stage, teachers also identified content most suitable for Canva integration, such as explanatory texts, descriptive texts, and visual presentations.

A teacher from SDN Cengkareng Barat 05 Pagi explained in an interview: *“We start by identifying which materials will be easier for students to understand when visualized. Canva is our choice because it allows us to combine images, text, and colors.”*

The planning also included selecting Canva design types to be used in learning. Teachers chose templates appropriate for elementary students, such as posters, infographics, and simple presentation slides. Template selection considered cognitive aspects, visual appeal, and ease of navigation, ensuring that visual elements supported students’ construction of understanding. This approach reflects Mayer’s (2009) cognitive theory of multimedia learning, which states that structured visual media enhances the integration of verbal and nonverbal information.

A teacher from SDN Semanan 12 Pagi added: *“We selected templates that are not too crowded so students remain focused on the content. Elementary students are easily distracted, so designs must be simple yet engaging.”*

In addition to material and design, planning involved allocating time and structuring learning steps that integrate Canva with activities requiring analysis, evaluation, and creation. Teachers developed lesson plans positioning Canva as part of core learning activities for example, analyzing text structure, creating visual summaries, or designing argumentative posters. This reflects efforts to facilitate higher-order thinking skills through technology integration, consistent with Brookhart’s (2010) HOTS framework.

A teacher from SDN Cengkareng Barat 05 Pagi stated: *“We design the instructional steps from beginning to end. Canva does not stand alone; it is part of the process from reading, analyzing, to creating a product.”*

Planning also considered student readiness and learning facilities. Teachers mapped students’ digital competencies and adjusted task complexity accordingly. The research found that both schools prepared shared laptops or scheduled personal devices and collaborated with parents to ensure device availability. This reflects the principle of adaptive planning in instructional management, requiring teachers to adjust instructional designs to students’ conditions (Clark & Mayer, 2016).

A statement from a teacher at SDN Semanan 12 Pagi illustrated this approach: *“Not all students are skilled yet, so we made two types of tasks. Students who are new to Canva receive simpler templates.”*

Overall, planning the use of Canva in Indonesian language learning at both schools included the consideration of competency goals, student characteristics, template selection, infrastructure readiness, and integration with HOTS activities. Such comprehensive planning demonstrates the application of the planning function in educational management as emphasized by Terry (in Sukarna, 2011), which asserts that successful instruction depends on clear, systematic planning aligned with student needs.

Organizing the Use of Canva Media in Indonesian Language Learning to Enhance Students’ Higher-Order Thinking Skills

The organization of Canva integration in learning at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi involved structuring teacher roles, preparing supporting resources, and arranging learning workflows so that Canva-based instruction could run effectively. At this stage, teachers served as facilitators who assist students in operating Canva while ensuring that design activities remain aligned with Indonesian language learning objectives. This aligns with Robbins and Coulter (2018), who state that organizing within educational settings involves

structuring resources, assigning roles, and coordinating actions to ensure instructional efficiency.

A teacher from SDN Cengkareng Barat 05 Pagi explained: “We group students based on their ability levels. Some are already proficient at using Canva, while others need closer guidance.”

Organizing was also evident in the strategy of grouping students. Students were grouped based on their levels of digital competence and reading skills to prevent difficulties using Canva from hindering comprehension of the subject matter. More capable students were positioned as peer tutors, facilitating collaborative learning. This aligns with Vygotsky’s (1978) theory of the zone of proximal development, emphasizing the importance of peer support in cognitive development. Teachers also arranged seating and digital devices to ensure that each group could work without disruption.

A teacher from SDN Semanan 12 Pagi described: “If the arrangement is not set from the beginning, the classroom becomes crowded, and students fight over devices. So, we organized access in turns.”

Resource preparation was another essential aspect of organization. Both schools established a special schedule for using digital devices so all students could access Canva alternately. Teachers prepared school laptops, allowed the use of personal devices, and ensured stable internet connections throughout the learning process. This reflects resource organization principles, where instructional leaders ensure the availability of learning tools to support activities (Mulyasa, 2021).

As expressed by a teacher at SDN Cengkareng Barat 05 Pagi: “We make sure all devices are ready before the lesson begins so that activities remain smooth.”

Additionally, teachers organized the workflow of Canva usage. Students received step-by-step guidance covering template selection, text insertion, visual element placement, and layout formatting. This workflow helps students work systematically and avoid spending excessive time on aesthetic exploration. The approach aligns with Mayer’s (2009) instructional design theory, emphasizing that visual learning must be structured to support information processing. A teacher from SDN Semanan 12 Pagi added: “We provide step-by-step instructions. Otherwise, students spend too long choosing images and learning goals are not achieved.”

Coordination mechanisms were also established between teachers and students during activities. Teachers provided verbal and visual instructions, monitored group progress, and ensured that students adhered to task directions. Through this organizational structure, teachers function as both facilitators and supervisors of digital learning processes, maintaining a conducive learning environment.

This was reinforced by a teacher from SDN Cengkareng Barat 05 Pagi: “When students create a poster, we check what needs improvement first before they continue to the next stage.”

Overall, the organization of Canva use in both schools demonstrated structured activity management, role assignments, device arrangement, and workflow design that support high-order cognitive processes. This structured organizing confirms that effective digital media use requires strong classroom management to ensure learning goals are achieved. These findings support Emmer and Sabornie (2015), who argue that classroom organization is a key factor in achieving effective digital-age instruction.

Implementation of Canva Media Use in Indonesian Language Learning to Enhance Students’ Higher-Order Thinking Skills

The implementation of Canva integration in Indonesian language learning at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi was carried out by embedding the digital platform into core instructional activities. Canva was not merely used as a visual aid but functioned as a medium for idea exploration, text analysis, and creative expression. The

learning process began with an introduction to content and examples of Canva use relevant to the lesson theme. This approach is consistent with Mayer's (2009) recommendation that visual media integration must start with a clear instructional orientation to ensure students understand the intended cognitive objectives.

As a teacher from SDN Cengkareng Barat 05 Pagi noted: *"After explaining the material, we immediately practice together. Students are asked to open Canva and follow the examples I display on the screen."*

Following the orientation, students engaged in text analysis activities using Canva. In lessons on explanatory or descriptive texts, for example, students identified text structures and presented the results in infographic form. These activities required students to comprehend, reorganize information, and select appropriate visual elements, thus promoting higher-order thinking processes. This aligns with Brookhart's (2010) HOTS model, emphasizing cognitive tasks involving selecting, organizing, and creating information.

A teacher from SDN Semanan 12 Pagi explained: *"We asked students to create infographics based on the reading text. They must select important information, not just copy all the content."*

Implementation also involved collaborative learning. Students worked in groups to design posters or digital presentations and then presented their work to the class. This not only fostered visual creativity but also enhanced critical thinking and communication skills. Such collaborative practices support Vygotsky's (1978) theory that social interaction is essential for the development of complex cognitive skills. As reported by a teacher at SDN Cengkareng Barat 05 Pagi: *"During group work, more skilled students assist their peers. This ensures everyone can participate."*

Throughout the implementation process, teachers provided intensive scaffolding. They monitored students' progress, offered immediate feedback on visual selection, text organization, and content accuracy. This reflects the scaffolding approach described by Wood, Bruner, and Ross (1976), which supports learners gradually in accomplishing complex tasks.

A comment from a teacher at SDN Semanan 12 Pagi highlights this: *"We correct parts that are not accurate such as mismatched images or excessive text then students revise accordingly."*

Additionally, student products were showcased at the end of the lesson. Students uploaded or displayed their designs and were asked to justify their visual choices and explain how their design represented textual content. These reflective activities correspond to Schön's (1983) concept of reflective practice, emphasizing the role of self-evaluation in deeper learning.

As expressed by a teacher at SDN Cengkareng Barat 05 Pagi: *"Students are asked to explain why they chose certain colors or images. From there, we can see how well they understood the material."*

Overall, the implementation demonstrated that Canva activated multiple higher-order cognitive processes. Students not only received information but also selected, evaluated, and transformed ideas into meaningful visual representations. These findings support Clark and Mayer (2016), who argue that successful technology-based learning depends on strong pedagogical integration and sustained instructional support.

Evaluation of Canva Media Use in Indonesian Language Learning to Assess the Development of Students' Higher-Order Thinking Skills

The evaluation of Canva integration in Indonesian language learning at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi was conducted systematically to determine the effectiveness of the process and the development of students' higher-order thinking skills. Teachers assessed students' performance not only through their final products but also through ongoing observation of their analytical and visual representation skills. This aligns with Anderson and Krathwohl (2010), who emphasized that evaluating higher-order thinking

requires measuring students' abilities to analyze, evaluate, and create. As stated by a teacher at SDN Cengkareng Barat 05 Pagi: "When students create infographics or posters, we first check whether the selected information is appropriate and whether the design helps explain the content of the text."

Evaluation utilized scoring rubrics featuring indicators such as accuracy in selecting information, clarity of visual structure, alignment between images and text content, and the ability to explain design decisions. Teachers provided immediate formative feedback to help students revise their visual layouts and refine their understanding. This formative approach is consistent with Black and Wiliam's (1998) assertion that ongoing assessment during instruction is more effective in improving learning outcomes than summative assessment alone. A teacher from SDN Semanan 12 Pagi stated: "We give direct comments. For instance, if the writing is too long or the color contrast is poor, students must revise before submission."

In addition to product assessment, teachers focused on the thinking process during the activity. They observed how students selected visual elements, connected textual information, and organized ideas into Canva designs. This reflects Killen's (2016) emphasis that HOTS-oriented learning must be accompanied by assessment of cognitive strategies, not merely end results. As explained by a teacher at SDN Cengkareng Barat 05 Pagi: "We observe how they choose information. Those who can justify their choices usually have a deeper understanding of the reading content."

Presentation skills were also evaluated. Students presented their work to the class, and teachers assessed argument clarity, the coherence between visuals and textual content, and students' ability to justify their design choices. This activity enhances communication and reflective thinking, consistent with Dewey's (1933) theory that learning occurs through reflective reasoning. A teacher from SDN Semanan 12 Pagi noted: "During presentations, we can easily see whether students truly understand the material or simply copy the template."

Both schools also implemented peer review, where students evaluated their peers' work based on simple criteria such as visual neatness, image relevance, and information accuracy. This peer-evaluation mechanism promotes metacognitive growth, as students learn to assess both others' performances and their own. This supports Flavell's (1979) claim that metacognition develops through processes of evaluating one's own thinking strategies.

A student from SDN Cengkareng Barat 05 Pagi expressed: "We can give comments to our friends, so we learn which designs are better and why." Final evaluation was carried out using a portfolio assessment, consisting of students' Canva creations collected over several sessions. The portfolio allowed teachers to track progress in analytical skills and visual information representation across time. This aligns with Arter and Spandel (2005), who state that portfolios provide richer insight into cognitive development than traditional assessments.

Overall, the evaluation practices in both schools demonstrated that Canva integration effectively contributes to students' higher-order thinking development when accompanied by structured and continuous assessments. Evaluating processes, products, and reflective reasoning enabled teachers to accurately determine the extent to which students connected textual information with visual representation. These findings affirm that the success of digital media in instruction depends significantly on HOTS-oriented assessments and constructive feedback.

Discussion

The findings of this study demonstrate that the integration of Canva in Indonesian language learning effectively supports the development of students' higher-order thinking skills (HOTS), provided that its implementation is grounded in systematic planning aligned with cognitive learning objectives. The teachers' planning process which involved analyzing content, selecting appropriate Canva templates, and designing HOTS-oriented learning activities aligns with Mayer's (2009) instructional design theory. This theory emphasizes that

visual media should facilitate the integration of verbal and non-verbal information to deepen students' cognitive processing. The strategic planning carried out by the teachers supports the results of Pratama, Rahayu, and Fauziah (2023), which indicated that Canva enhances visual relevance, student engagement, and alignment with 21st-century competencies.

The integration of Canva observed in this study reinforces that structured planning directly influences the quality of digital learning implementation. Without proper instructional planning, digital media risk becoming merely decorative rather than serving as a tool that strengthens students' analytical and creative thinking.

The organization of learning activities particularly grouping students based on their digital and literacy skills reflects the application of social constructivist principles, specifically Vygotsky's (1978) zone of proximal development framework. Peer tutoring in Canva-based tasks enabled collaborative scaffolding as more proficient students supported those who were still developing their digital skills. This finding is consistent with Lin, Warschauer, and Blake (2020), who observed that collaborative interaction in digital learning environments enhances literacy and critical thinking.

Moreover, the structured arrangement of devices and workflow supports Emmer and Sabornie's (2015) argument that classroom management plays a crucial role in the success of technology-enhanced learning. This study's results highlight that Canva integration requires more meticulous classroom organization compared to traditional teaching approaches, particularly to avoid cognitive overload and technical disruptions.

The implementation phase confirmed that Canva functions not only as a presentation tool but also as a medium for knowledge construction. Students engaged in tasks that required them to analyze information, reorganize ideas, and create new visual representations, which aligns with Brookhart's (2010) HOTS framework. Similar to findings by Mutlu-Bayraktar, Cosgun, and Altay (2021), digital visual tasks in this study enhanced analytical performance and problem-solving abilities.

These results are further supported by Boari, De Marco, and Marchisio (2023), who demonstrated that visual design media increases learning motivation, conceptual understanding, and student productivity. In this study, students showed improved abilities to connect textual content with appropriate visual elements and justify design decisions behaviors indicative of advanced cognitive engagement.

The evaluation strategies implemented combining process, product, and reflection assessments illustrate a comprehensive measurement of cognitive development. Formative feedback and revision cycles applied throughout the Canva activities align with Black and Wiliam's (1998) view that instructional feedback significantly enhances learning progress. Portfolio-based evaluation further enriched assessment by tracking growth over time, reaffirming Arter and Spandel's (2005) perspective on portfolio authenticity in assessing complex cognitive skills.

The use of peer review also contributed to metacognitive development. When students evaluated peers' designs, they engaged in reflective judgment about visual clarity and content accuracy. This finding aligns with Flavell's (1979) theory that metacognition is strengthened through self-reflection and evaluative practices, which was also supported by digital learning studies conducted by Arifani et al. (2022).

More broadly, the findings affirm Jewitt's (2008) multimodal literacy framework, which argues that meaning construction emerges not only through text but through the interplay of texts, visuals, colors, and spatial arrangements. Canva supports multimodal literacy and digital literacy simultaneously, making it highly relevant to 21st-century educational needs.

Taken together, the study highlights that: The effectiveness of Canva in improving HOTS is not determined solely by the digital tool itself, but strongly influenced by the quality of instructional design and classroom management. Thus, the findings contribute both theoretically and practically to digital learning development in primary schools, affirming that

Canva can be a powerful medium for HOTS enhancement when supported by planning, organization, implementation, and evaluation strategies rooted in strong pedagogical foundations.

CONCLUSION

This study concludes that the use of Canva as an instructional media in Bahasa Indonesia learning at SDN Cengkareng Barat 05 Pagi and SDN Semanan 12 Pagi has proven effective in enhancing students' higher-order thinking skills when implemented through comprehensive instructional management functions. Teachers carried out purposeful planning, well-organized classroom and technological arrangements, instructional activities that emphasized analytical and creative visual tasks, as well as in-depth evaluation of learning processes and products through direct feedback, authentic assessment, and peer evaluation. Canva functioned not only as a visual learning tool but also as a medium that encouraged students to interpret texts, select essential information, connect concepts, and produce digital works that reflect higher-order thinking processes. These findings reinforce the notion that successful technology integration in learning is strongly influenced by the quality of teachers' management in designing and controlling the entire instructional process.

The implications of this study suggest that teachers must strengthen their capacity in managing digital-based learning to optimize the use of Canva and other technological media for improving students' higher-order thinking skills. Teacher professional development should not only focus on technical skills in operating digital tools but also on instructional design, HOTS-based assessment, and scaffolding strategies to guide students in producing meaningful digital outputs. Schools need to provide adequate device support, internet access, and collaborative planning time for teachers to design Canva-based learning activities. For policymakers, the findings serve as a basis for developing professional development programs in digital literacy and innovative pedagogy. Thus, digital media integration should not merely serve as supplementary support but as a key strategy in developing students' critical, creative, and adaptive thinking skills aligned with 21st-century educational demands.

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