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Analysis of the Development of Visual Characteristics in Drawings of Children Aged 4–6 Years at Privart Studio

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Abstrack

Previous studies on children's drawings have predominantly employed cross-sectional approaches, leaving limited evidence regarding how children's visual characteristics develop over time, particularly in non-formal art education settings. This study addresses this gap by applying a six-month longitudinal design to compare children's early and later drawings based on the visual elements of line, shape, color, and space. This study aims to analyze the development of visual characteristics in the drawings of children aged 4-6 years at Privart Studio by comparing their early works with those created after participating in a six-month drawing program. The study employed a qualitative method with a descriptive-comparative approach. Subjects were selected purposively, consisting of three children aged 4-6 years who participated in the regular learning program. Data were collected through observation, interviews, and documentary analysis, then analyzed comparatively based on four elements of visual art: line, shape, color, and space. The results indicate that all three subjects exhibited visual development after six months of instruction, with distinct patterns observed in each individual. The most notable development was evident in the aspects of color and line, while spatial understanding showed the most limited improvement. These variations were influenced by the children's initial abilities, attendance frequency, and individual learning conditions. The findings demonstrate that structured non-formal visual arts education supports children's visual development and provide practical insights for art educators and studio instructors in designing learning activities and monitoring children's visual progress through continuous documentation.

Keywords: visual development, children's drawings, early childhood art, nonformal education, visual characteristics

INTRODUCTION

Art education in early childhood plays a crucial role in supporting children's cognitive, motor, emotional, and symbolic development. Drawing is one of the earliest forms of nonverbal communication that children use to represent their experiences and imagination. Through this activity, children not only produce visual works but also demonstrate the process of symbolic thinking and the gradual development of visual-motor coordination (Hamka, 2023). Research by Prayitno et al. (2025) indicates that children's drawings often represent the visual experiences they have had, so drawings can be used to understand how children express their ideas and experiences visually. Therefore, children's drawings can be understood as both a part of the developmental process and a means of visual expression for children.

From an art education perspective, children's drawings can also be interpreted as visual texts that reflect how children construct meaning from their experiences and communicate their thoughts nonverbally. Consequently, the study of children's drawings is relevant not only from an aesthetic perspective but also as a means of understanding children's cognitive, emotional, and visual development. Furthermore, empirical studies have shown that the development of children's drawings reflects not only improvements in motor skills but also the development of visual representation, conceptual understanding, and learning experiences gained through interaction with their environment. These findings suggest that children's visual development occurs gradually and therefore requires continuous observation to obtain a more comprehensive understanding of changes in their visual characteristics (Gil-Ruiz et al., 2025; Long et al., 2024).

In both formal and non-formal educational contexts, visual arts hold a strategic position as a vehicle for the comprehensive development of children's abilities. Through visual arts activities, children are not only trained in technical skills but also in creative thinking, the ability to solve visual problems, and aesthetic sensitivity, all of which form a crucial foundation for long-term intellectual

development (Hamka, 2023). This view is supported by Reagan (2024), who emphasizes that visual art experiences in early childhood provide important opportunities for children to develop visual thinking, communication, and creative thinking. This ease of access makes drawing an ideal entry point for stimulating visual development from an early age. Visual art education during early childhood also promotes creativity, symbolic thinking, and visual communication through continuous artistic experiences (Bai et al., 2022).

Cognitively, children aged 4-6 years are in the preoperational stage, during which they begin to use symbols to represent reality (Piaget, as cited in Marinda, 2020). This aligns with the pre-schematic phase, characterized by the emergence of visual symbols, although these remain simple in structure, proportion, and spatial arrangement (Lowenfeld and Brittain, as cited in Pamadhi, 2014). Visual characteristics during this phase typically include basic lines, schematic human figures, and the use of colors that are subjective in nature.

According to Lowenfeld and Brittain (as cited in Pamadhi, 2014), the pre-schematic phase generally occurs in children aged 4-7 years and is a crucial period during which children begin to develop connections between thought and visual representation. During this phase, children do not yet possess a structured concept of space, and objects in drawings tend to be scattered without clear visual connections to one another. Colors are chosen emotionally and intuitively, rather than based on resemblance to reality. Meanwhile, human figures begin to appear in the form of "cephalopods" or head and limb shapes without a torso, which gradually evolve into more complete figures as drawing experience increases. Understanding this phase is crucial for educators as it determines the appropriate type of stimulation to support the transition to the schematic phase. Gil-Ruiz et al. (2025) confirmed that Lowenfeld's drawing development model remains a relevant framework for understanding children's visual development, while also noting that the age of emergence of each stage may vary due to

individual, sociocultural, and environmental factors.

A key implication of understanding this pre-schematic phase is that children's visual development does not occur automatically with age but requires appropriate and continuous stimulation. Children who are provided with regular opportunities to draw in supportive environments may develop stronger visual-motor control and visual representation skills. Previous empirical studies also indicate that environmental support, including guidance from adults and learning experiences, contributes significantly to the development of children's drawing abilities during early childhood (Straffon et al., 2024). This underscores the importance of structured art education programs, both in formal and non-formal settings, in supporting children's transition from the pre-schematic phase to the more organized schematic phase of drawing development.

Previous research indicates that the development of drawing skills in young children during the preschool years generally occurs at the pre-schematic stage, characterized by the emerging control of lines, the use of increasingly clear visual symbols, and the growing recognizability of object shapes (Gil-Ruiz et al., 2025). These findings align with Lowenfeld and Brittain's theory of children's drawing development (as cited in Pamadhi, 2014). However, such studies tend to focus on identifying visual characteristics based on developmental stages rather than examining changes in children's artwork over a specific period of time. Moreover, most empirical studies have employed cross-sectional designs that describe children's drawings at a single point in time or compare different age groups. Although these approaches are valuable for identifying developmental characteristics, they provide limited evidence regarding how the visual characteristics of the same child develop throughout a continuous learning process (Long et al., 2024; Philippsen et al., 2022). In fact, understanding children's visual development through comparisons of works across different periods is crucial for observing visual characteristics in a more gradual and concrete manner.

The urgency of a longitudinal approach in child drawing research has long been recognized in the literature on art development, although it has not yet been consistently applied. Longitudinal studies allow researchers to observe individual developmental trajectories in real time, rather than merely comparing average characteristics of different age groups, as is done in cross-sectional designs. Philippsen et al. (2022) demonstrated that there are significant differences in children's drawing development even within the same age range, which cannot be captured by a single snapshot. This perspective is also supported by Heaton (2024), who emphasizes that observing children's drawings over an extended period provides richer evidence of children's cognitive and visual development than one-time observations. These findings underscore that children's visual development is idiosyncratic, each child has a unique developmental trajectory that can only be understood through time-based observation.

In the context of non-formal education, this urgency is particularly relevant given that institutions such as art studios work with children in long-term programs that involve periodic documentation of their work. This potential has not yet been fully utilized in research on children's visual arts in Indonesia. Most existing studies remain descriptive-synchronic in nature, meaning they describe the characteristics of children's drawings at a single point in time without comparing them to the same works from different periods. Consequently, empirical evidence explaining how children's visual characteristics develop over time within structured non-formal art education settings remains limited. This limitation constitutes an important research gap, considering that non-formal art education environments possess unique characteristics that enable systematic observation of children's visual development through continuous learning experiences (Prayitno et al., 2025; Yuningsih, 2022).

By addressing this research gap, the present study aims to provide a more comprehensive understanding of how the visual characteristics of children's drawings develop after participating in a

structured six-month drawing program within a non-formal art education setting.

The development of children's visual characteristics is associated not only with age but also with learning experiences and opportunities for visual exploration in supportive environments. The existence of art studios as non-formal educational institutions allows children to receive structured and continuous practice, thereby supporting the development of their visual abilities (Yuningsih, 2022). In this context, the analysis of children's artwork can be conducted through an approach focused on the elements of visual art, such as line, shape, color, and space, thereby enabling a more objective interpretation of the artwork (Hamka, 2023; Patriani et al., 2025). Research by Nurcahyo and Martadi (2022) indicates that the visual characteristics of children's drawings can be identified through dominant visual elements, such as line, plane, form, and color. Furthermore, analysing children's drawings based on the elements of visual art provides a systematic framework for identifying changes in each visual element over time, allowing children's visual development to be interpreted more objectively and comprehensively (Patriani et al., 2025). However, in practice, the evaluation of children's artwork remains largely subjective, making it difficult to systematically map visual development.

Given these conditions, this study focuses on how the visual characteristics of drawings by children aged 4-6 years develop through a comparison of early works and works created after participating in drawing activities over a specific period. This study aims to analyze development through the analysis of visual art elements, thereby providing a more concrete picture of the visual development process in children.

This study contributes by providing a longitudinal perspective on children's visual development within a structured non-formal art education setting. Unlike previous studies that primarily employed cross-sectional approaches or focused on describing children's drawings at a single point in time, this study compares children's initial and final artworks after six months of continuous learning. In addition, the analysis is

conducted systematically based on the elements of visual art, line, shape, color, and space, allowing the development of each visual element to be examined in greater detail. This approach offers an empirical contribution to research on children's drawing development while expanding the discussion of longitudinal studies in early childhood art education, particularly within the context of non-formal art education.

The findings of this study are expected to contribute theoretically by enriching discussions on children's drawing development from a longitudinal perspective and by reinforcing the application of visual art elements as an analytical framework for examining children's visual development. Practically, the findings are expected to serve as a reference for art educators and non-formal art institutions in designing learning strategies that better support children's visual development according to their developmental characteristics.

METHODS

This study employs a qualitative method with a descriptive-comparative approach. The study aims to describe and compare the visual characteristics of drawings by children aged 4-6 years across two time periods: early works and works created after participating in drawing activities for at least six months. The study was conducted at Privart Studio, a non-formal arts education institution. The research was carried out in four stages: (1) preparation, including the selection of research subjects and the collection of initial drawing documentation; (2) data collection through observation, interviews, and documentation; (3) comparative analysis of children's drawings produced at the beginning of learning and after six months of participation; and (4) interpretation of findings based on theories of children's drawing development.

A descriptive-comparative approach was used to describe the visual characteristics of each period in detail and then compare them to identify patterns of change. This approach enables changes in each visual element to be interpreted

systematically by comparing drawings produced by the same child at two different periods of learning.

Research subjects were selected using purposive sampling, specifically children who had documentation of their initial artwork and artwork produced after six months of learning. These criteria were established because the availability of longitudinal data is a primary requirement enabling comparative analysis across periods. The inclusion criteria were as follows: (1) children aged 4–6 years; (2) actively participating in drawing classes at Privart Studio for a minimum of six months; (3) attending learning sessions at least once a week; and (4) having complete documentation of drawings from the beginning and the end of the observation period. Additionally, the three selected subjects represent variations in learning engagement patterns, with some children showing greater involvement in free drawing activities, while others more frequently engaged in coloring pre-drawn images. These variations were considered important to provide a richer understanding of children's visual development under different learning experiences. Considering differences in children's learning experiences is important because different forms of support during drawing activities may influence children's visual development (de Groot et al., 2023). The selection of three subjects in this comparative case study is deemed sufficient for in-depth analysis, given that qualitative research prioritizes depth of understanding over the breadth of sample size. Research data were obtained through observation, interviews, and document analysis. Observations were conducted to monitor the drawing process and the children's engagement during learning. In-depth interviews were conducted with instructors and the studio owner to gather information regarding the learning process, along with brief interviews with the children to understand their experiences in the drawing activities. The inclusion of interviews with children was intended to better understand the meanings behind their drawings, since children's explanations provide important contextual information for interpreting visual representations (Podobnik et al., 2024). Additionally, a documentary study was

conducted on the children's drawings as the primary research data.

Data collection was conducted from the beginning of the children's participation in the drawing program until they had completed at least six months of learning. Throughout this period, the researcher documented children's drawings and collected supporting information through observations and interviews to identify changes in their visual characteristics over time.

Observations were conducted naturally during learning sessions, focusing on the children's drawing behaviors, how they held drawing tools, their expressions while drawing, and their interactions with the instructors. Observation notes were used to record children's drawing behaviors, their responses during learning activities, interactions with instructors, and the use of drawing media throughout the learning process. Interviews with the instructors and studio owners focused on their assessments of each child's development, the challenges faced, and the learning strategies implemented. Interviews with the children were conducted informally using simple open-ended questions about what they were drawing and why. The interview guide consisted of open-ended questions to encourage participants to explain their experiences freely while allowing the researcher to explore information relevant to the study objectives. Data from these three sources were then triangulated to obtain a more comprehensive and valid understanding of each subject's visual development. Source triangulation was applied by comparing findings obtained from observations, interviews, and drawing documentation to ensure the credibility and consistency of the research findings.

The research data consisted of documentation of children's drawings, which were analyzed based on visual art elements including line, shape, color, and space. The selection of these indicators was based on the study by Nurcahyo and Martadi (2022), which used visual elements as the basis for identifying the characteristics of children's drawings. Data analysis was conducted in three stages: data reduction, data presentation, and drawing conclusions (Miles & Huberman, 1994).

The analysis process involved identifying visual characteristics in each period and then comparing the changes that occurred. The interpretation of the results was linked to theories of early childhood drawing development to obtain a systematic picture of visual development.

RESULTS AND DISCUSSION

The Context of Drawing Instruction at Privart Studio

Privart Studio is a non-formal visual arts education institution that offers regular learning programs in the form of studio classes and home visits. In addition, Privart Studio also runs project workshops on a periodic basis.

This study focuses on children aged 4-6 who regularly participate in studio classes or home visits, with a frequency of once a week and a duration of 80 minutes per session. Each session consists of four stages: an opening discussion, a demonstration by the instructor, independent drawing practice, and an evaluation of the artwork. The approach is both demonstrative and participatory; children are not merely asked to copy examples but are encouraged to develop visual ideas based on their own experiences and imagination.

Privart Studio compiles monthly progress reports on the students, which include notes on the children's visual, technical, and creative abilities based on observations and documentation of their work. This consistent documentation system serves as the basis for the availability of longitudinal data in this study, and is also one of the reasons Privart Studio was selected as the research site. The existence of a continuous program and periodic documentation of work demonstrates learning characteristics commonly found in non-formal arts education institutions (Yuningsih, 2022). More importantly, this documentation system enables children's visual development to be observed continuously rather than through a single assessment, thereby providing a stronger basis for identifying gradual changes in their drawings over time. This characteristic distinguishes the present study from most previous studies that relied on

cross-sectional observations and reinforces the value of longitudinal documentation in early childhood art education research.

The four stages in each learning session, opening discussion, demonstration, independent practice, and evaluation, play complementary roles in supporting children's visual development. The opening discussion serves to activate children's experiences and imagination as sources of visual ideas. This stage is crucial because research by Prayitno et al. (2025) indicates that children's drawings are significantly influenced by the visual experiences they had, so activating children's visual memory before drawing can enrich the visual representations they produce.

The instructor's demonstration provides a visual model that can serve as a reference without needing to be rigidly copied. In the demonstrative-participatory approach implemented by Privart Studio, the demonstration functions as a technical foundation, not as a standard for the final result. Children are encouraged to develop their own visual ideas based on this technical foundation. Meanwhile, the independent practice phase is where children's visual exploration unfolds freely, and it is precisely here that the development of lines, shapes, and spatial composition is most stimulated. Evaluating the work at the end of the session provides an opportunity for children to reflect on their work and for the instructor to offer constructive feedback. Similarly, Hanifaratri et al. (2025) reported that structured drawing activities contribute to children's creativity by providing continuous opportunities for visual exploration and artistic expression. These findings also support the view that structured artistic stimulation in non-formal learning environments contributes not only to children's technical drawing skills but also to the gradual development of their visual representation abilities. Thus, the learning process implemented at Privart Studio reflects how structured artistic activities can support children's emotional development while also providing meaningful opportunities for visual exploration during early childhood (Putri et al., 2025)

Based on observations and interviews, children's visual development is most often evident

in their mastery of colors, their willingness to fill in areas of a drawing, increased attention to detail in shapes, and control over their lines. However, this development does not occur uniformly. Each child demonstrates a different pattern of progress depending on their age, attendance, and learning conditions. This variation indicates that children's drawing development is highly individual and cannot be explained solely by chronological age. Instead, the findings suggest that continuous learning experiences and opportunities for visual exploration play an important role in shaping the pace and pattern of children's visual development. This observation provides an important foundation for the comparative analysis presented in the following sections.

Development of Visual Characteristics: Eleena



Figure 1. Eleena's Early Work



Figure 2 Eleena's Final Work

In her early works, Eleena's lines were still unsteady, her pencil pressure was uneven, and her lines tended to repeat in certain areas. As a result, the objects she drew were still schematic and lacked detail. Human figures were depicted with simple shapes, lacking facial details or fully rendered body parts. This reflects the characteristic features of the pre-schematic phase, during which a child's fine motor control is still developing (Lowenfeld and Brittain, as cited in Pamadhi, 2014).

After six months of instruction, significant changes became evident. Lines became more defined and purposeful, and line repetition decreased. Concurrently, object shapes evolved into more complex forms with the addition of details such as faces, hair, and other supporting elements. This interconnection between the development of lines and shapes indicates improved visual-motor coordination, which plays an important role in the development of drawing skills in young children (Hamka, 2023). This finding aligns with Gil-Ruiz et al. (2025), who demonstrated that children's drawing development during the pre-schematic stage is characterized by improved line control, the use of increasingly clear visual symbols, and more purposeful spatial organization. The present findings further reinforce this theoretical perspective by demonstrating that

such developmental changes can be observed not only across age groups but also within the same child through continuous observation over time. This suggests that longitudinal documentation provides a more comprehensive understanding of children's drawing development than single-time assessments.

Regarding color, Eleena showed a progression from simple and limited color use toward bolder and more varied color choices. Although the coloring techniques do not yet demonstrate a high degree of complexity, the child's boldness in experimenting with color reflects a growing sense of expressive confidence. Meanwhile, in terms of spatial awareness, there is an improvement in the more even filling of the picture's areas, although the understanding of depth and spatial perspective remains rudimentary, a condition that is indeed common among children aged 4-6 who have not yet entered the full schematic phase.

The comprehensive development demonstrated by Eleena may be related to the intensity of her engagement in free drawing activities throughout the program. When children actively construct objects from scratch, rather than merely filling in colors within existing outlines, they practice planning, executing, and evaluating their own visual representations. This process directly trains the coordination between visual intent and motor skills, which ultimately manifests in improved line quality and the complexity of forms. This aligns with the view that drawing skills in young children develop through repeated, guided practice in an environment that supports exploration (Gil-Ruiz et al., 2025). This finding is consistent with Richards (2019), who argues that children develop richer visual understanding when they are encouraged to explore their own visual ideas rather than merely reproducing examples provided by adults. Rather than viewing drawing development solely as a consequence of maturation, the present findings indicate that structured learning experiences may accelerate the refinement of children's visual characteristics when they are provided with sufficient opportunities to construct their own visual representations.

The implication for non-formal art education is that the proportion of free drawing activities needs adequate attention in art studio curricula, as this type of activity is particularly effective in stimulating the development of visual elements such as lines, shapes, and spatial organization, which emerge naturally when children draw independently. From a theoretical perspective, Eleena's case reinforces Lowenfeld and Brittain's developmental framework while also extending its application by highlighting the contribution of continuous artistic stimulation in supporting children's visual development. This finding indicates that children's progression through developmental stages is influenced not only by age but also by the quality and continuity of learning experiences provided within non-formal art education settings.

Development of Visual Characteristics: Rayma



Figure 3. Rayma's Early Work



Figure 4. Rayma's Final Work

Unlike Eleena, Rayma's development shows a pattern that is more focused on color, with relatively limited development in lines and shapes. This is closely tied to the dominant learning activities in Rayma's case, namely, coloring pre-drawn pictures, so that independent exploration of lines and object formation has not yet become a central part of her experience.

In her early works, Rayma's use of color was already quite varied, though it remained flat and did not yet demonstrate any specific technique. After six months, Rayma began applying simple gradations, filling the picture areas more evenly, and producing smoother, more harmonious colors. These findings suggest an association between continuous drawing experience and the development of color use in the child. These results align with Patriani et al. (2025), who identified color as one of the visual elements that can be used to examine the development of visual characteristics in children's drawings. This development also indicates that consistent stimulation in non-formal learning environments may support the development of color use in young children. These findings reinforce the view that children's visual development may progress differently across visual elements. While improvements in line and shape require

opportunities for independent object construction, color development appears to respond more readily to repeated practice and guided exploration during drawing activities.

As for the aspects of line, shape, and space, Rayma has not yet shown significant changes. This is understandable given that the dominance of coloring activities limits the child's opportunities to practice drawing lines and forming objects independently. This finding serves as an important reminder to educators that the type of learning activities provided helps determine which aspects of visual development will be most stimulated. Rather than indicating a lack of developmental progress, Rayma's case illustrates that different learning experiences may lead to different developmental profiles. Consequently, children's drawing development should be interpreted according to the nature of the learning experiences they receive, rather than being evaluated solely on the basis of chronological age or comparison with other children.

The findings regarding Rayma also raise questions about the balance between free drawing and coloring activities in the non-formal art education curriculum. Coloring pre-drawn images also has its own value as it can help children practice fine motor control, sensitivity to contours as well as awareness of color and visual composition. This finding is consistent with Qomariah et al. (2025), who explain that children frequently use colour as a medium for emotional communication and self-expression. However, if this activity dominates a child's learning experience without being interspersed with independent drawing exploration, the development of the ability to form objects and organize space independently will be delayed. This situation is not necessarily a program failure; it may simply be Rayma's own preferences and comfort level that have led to coloring activities becoming more dominant. However, this finding serves as a reminder that educators need to proactively monitor the distribution of activity types per child and gradually encourage a transition toward more independent exploration, especially when a child has

demonstrated maturity in certain aspects, as seen in Rayma's color development.

From a theoretical perspective, Rayma's case demonstrates that children's visual development is multidimensional rather than uniform. Progress in one visual element does not automatically imply similar progress in other elements. This finding complements the developmental framework proposed by Lowenfeld and Brittain by showing that the sequence and intensity of development in each visual element are also influenced by children's learning experiences and the types of artistic activities they undertake. Therefore, children's drawing development should be interpreted as the interaction between developmental readiness and continuous educational stimulation rather than as a process determined solely by age-related maturation.

Development of Visual Characteristics: Amara



Figure 5. Amara's Early Work



Figure 6. Amara's Final Work

Amara's case is worth examining because the changes evident in her work mark a fairly fundamental qualitative leap: from coloring pre-drawn images to the ability to draw objects independently. In her early works, Amara did not yet demonstrate the ability to arrange objects freely, all activity remained centered on filling in colors within predetermined outlines. This indicates that, in terms of initial ability, Amara was at the earliest stage among the three subjects.

After six months of learning, Amara began to show the ability to draw objects independently with more purposeful placement and more thorough coverage of the drawing area. The emergence of lines resulting from independent drawing, though still simple, is a key indicator of a child's expressive and motor development. Development in spatial and compositional aspects also began to appear, though still at the earliest stage. Color usage showed improvement in terms of boldness and coverage of the drawing area, though it was not yet fully controlled. These findings indicate that children's visual development is not limited to improvements in technical drawing skills but also involves gradual changes in their ability to organize visual ideas into meaningful representations. Such progress illustrates how

children's visual thinking develops alongside their increasing confidence to construct images independently.

Amara's development specifically reinforces the argument regarding the importance of a longitudinal approach in assessing a child's visual progress. The shift from coloring provided images to independent drawing is a transformation that would not be captured by a single momentary observation. This finding is consistent with the notion that children's artistic development is cumulative and individual, and therefore requires long-term observation to be fully understood (Lowenfeld and Brittain, as cited in Pamadhi, 2014). From a methodological perspective, this finding demonstrates that longitudinal observation provides richer evidence of children's developmental trajectories than cross-sectional assessment because it captures the sequence of changes experienced by the same individual over time.

Amara's case also highlights the importance of a *baseline* in assessing a child's visual development. A child starting from the very beginning, in this case, one who cannot yet draw independently, cannot be fairly assessed using the same standards as a child who already possesses basic drawing skills. Amara's progress from merely coloring pre-drawn outlines to being able to form objects on her own represents a qualitative leap that may be considered more substantial than, for example, the improvement in color shading techniques achieved by Rayma. This underscores the need for a child art development assessment system that is individual-referenced, not norm-referenced, that is, measuring how far a child has progressed from their own starting point, rather than comparing them to age-group standards. The ability to transform verbal or conceptual ideas into visual forms reflects children's developing capacity to communicate meaning through images (Gunadi, 2012).

From a theoretical perspective, Amara's case strengthens the argument that children's drawing development should be understood as an individual and dynamic process rather than as a fixed sequence determined solely by age. While

Lowenfeld and Brittain's developmental stages remain relevant for describing general patterns of children's drawings, the present findings demonstrate that the pace and form of development are also shaped by continuous learning experiences within supportive educational environments. Consequently, longitudinal observation enables researchers and educators to identify meaningful developmental changes that may not be apparent when children's drawings are examined only at a single point in time.

Patterns of Visual Development Across Subjects: A Comparative Analysis

When the three cases above are examined comparatively, several patterns can be generalized, while still taking into account the unique characteristics of each individual.

First, color development is the dimension that is most consistently observed across all three subjects. These results support the findings of Nurcahyo and Martadi (2022) that color is one of the most dominant and easily observable visual characteristics in children's drawings. This can be explained by the nature of color as the visual element that children can most easily manipulate directly, and which is most frequently emphasized in drawing instruction at non-formal institutions such as Privart Studio.

The dominance of color development in the three subjects can also be understood from the perspective of children's cognitive development. Color is the visual element most directly linked to children's emotional responses, children intuitively choose colors based on their feelings and personal preferences, not on technical considerations. This makes color exploration feel more free and enjoyable for children compared to, for example, efforts to construct proportional shapes or consciously organize space. When learning provides freedom in color use while also offering adequate technical guidance, such as how to create gradients or mix colors, children can develop more rapidly in this dimension because their intrinsic motivation is already high. These findings reinforce the understanding that different visual elements develop at different rates and may respond

differently to educational stimulation. In particular, color appears to be the visual element that develops most readily during the pre-schematic stage because it is closely connected to children's emotional expression and early visual experiences. A similar developmental tendency was reported by Rengganis (2017), who found that spatial organization becomes increasingly structured as children progress toward the schematic stage.

Second, the development of lines and shapes is highly dependent on the type of drawing activity that dominates the child's learning experience. Subjects who were more involved in free drawing (Eleena) demonstrated clearer development of lines and shapes, while subjects who spent more time coloring pre-drawn images (Rayma, Amara in the early stages) showed more limited progress in both dimensions.

This pattern has important pedagogical implications. When a child spends too much time engaged in a single type of activity, in this case, coloring pre-drawn pictures, they tend to develop stronger skills in the aspects most frequently practiced, while other visual dimensions that receive less stimulation risk stagnating. This situation reminds educators that the design of the art studio curriculum must explicitly consider a balance of activity types, rather than simply following the child's preferences or the technical ease of implementation. As demonstrated by the comparison between Eleena and Rayma, the dominant type of activity over six months of learning has a significantly different impact on each child's visual development profile. From a theoretical perspective, these findings extend the developmental framework proposed by Lowenfeld and Brittain by suggesting that progression through children's drawing stages is influenced not only by maturation but also by the quality and diversity of artistic experiences provided during the learning process. Thus, educational experiences should be considered an important factor shaping children's visual development alongside age-related developmental characteristics.

Third, spatial understanding is the dimension that shows the most limited development among the four elements analyzed.

Among the three subjects, only Amara demonstrated relatively clear changes, and even those were still at a very basic level. This finding is consistent with theories of children's drawing development, which state that concepts of space and perspective are achievements that develop gradually at a later age, specifically during the schematic phase around 7-9 years old (Lowenfeld and Brittain, as cited in Pamadhi, 2014). These findings also have relevant implications for non-formal art educators: the development of spatial understanding in children aged 4-6 years should not be made the primary focus in evaluating learning progress, as developmentally, it is simply not yet the appropriate time for this to be achieved. Instead, spatial stimulation at this age should be directed toward simpler, developmentally appropriate activities, such as encouraging children to fill the entire picture area, place several objects within a single image, or intuitively grasp the concepts of up-down and front-back. Such stimulation can serve as a foundation that prepares children to enter the schematic phase more effectively without forcing achievements that are not yet aligned with their developmental capacity. The findings also reinforce the theoretical assumption that visual development does not occur simultaneously across all visual elements. Instead, different dimensions of children's drawings emerge progressively according to both developmental readiness and learning experiences.

Fourth, the interindividual variations found in this study confirm that children's visual development is not linear or uniform but is influenced by factors such as initial ability, the frequency and type of learning activities, as well as the child's emotional state and concentration during learning. In addition, parental support and opportunities to draw outside formal learning environments may contribute to these individual differences (Hiçyılmaz, 2024). These findings align with the results of Patriani et al. (2025), who found that children's drawing characteristics are influenced by various multidimensional individual factors, as well as with Philippsen et al. (2022), who demonstrated that there are differences in drawing development among individuals even within the

same age range. The implication is that non-formal art educators need to design programs that are flexible enough to accommodate variations in each child's progress, rather than relying on a monolithic developmental standard. This program flexibility must be balanced with a consistent system for monitoring individual development. Without structured monitoring, individual developmental variations risk going undetected until the differences have become too significant to be addressed in a timely manner. The monthly documentation system implemented by Privart Studio, which records each child's visual, technical, and creative development, serves as a best practice example that enables instructors to identify individual developmental patterns earlier and adjust their teaching approaches responsively. Such documentation practices need to be more widely adopted by other non-formal art education institutions as part of program management focused on children's development, rather than solely on the production of artworks. This finding contributes to the theoretical discussion of early childhood art education by emphasizing that longitudinal documentation provides important evidence for understanding children's individual developmental trajectories, which are often overlooked in studies employing cross-sectional designs.

These comparative findings also have broader implications for the design of non-formal visual arts education programs. If color development occurs most consistently because color is most frequently emphasized in learning, this simultaneously indicates that other visual elements, particularly space and composition, need to be given a more explicit focus in instructional design. Yuningsih (2022) emphasizes that the curriculum for children's art studios must be structured with a balanced consideration of the visual elements being stimulated. Without a curriculum plan that consciously addresses the distribution of stimulation across these elements, children's visual development will tend to be lopsided, strong in one dimension but lagging in another. Moving forward, Privart Studio and similar non-formal art education institutions may

consider designing session plans that explicitly target spatial and compositional elements, for example through activities such as drawing simple landscapes, arranging objects within a picture plane with guidance, or drawing from direct observation of real objects.

Overall, the findings of this study support the view that structured and consistent non-formal arts education institutions, such as Privart Studio, can serve as effective agents of visual stimulation for young children. Furthermore, this study suggests that a longitudinal approach provides a more comprehensive picture of the development of children's visual characteristics through a comparison of their work across different periods, making it worthy of consideration as one of the approaches in future research on children's art education. The findings therefore reinforce Lowenfeld and Brittain's developmental framework while extending its application to non-formal art education contexts. Rather than viewing children's drawing development solely as a sequence of age-related stages, this study demonstrates that continuous artistic stimulation, opportunities for visual exploration, and systematic documentation all contribute to shaping children's visual development.

From a longitudinal research perspective, the findings further demonstrate that observing children's drawings across multiple time points provides richer evidence of developmental change than single-time observations. Longitudinal documentation allows researchers to identify not only the outcomes of children's drawing development but also the processes through which visual characteristics gradually emerge and become more refined. Consequently, this study contributes to strengthening the use of longitudinal approaches in future research on children's drawing development and early childhood art education.

Despite these contributions, this study has several limitations that should be considered when interpreting the findings. First, the study involved only three participants from a single non-formal art education institution, which limits the transferability of the findings to other educational contexts. Second, the longitudinal observation

covered only a six-month learning period, whereas children's visual development is a continuous process that may reveal different patterns over longer periods. Third, this study focused exclusively on children participating in non-formal art education and did not compare their development with children learning in formal educational settings. Therefore, the findings should be interpreted within the specific context of this study rather than generalized to all children of the same age.

Future research is recommended to involve a larger number of participants from various educational settings in order to obtain a broader understanding of children's visual development. Extending the observation period beyond six months may also provide deeper insights into the continuity of children's drawing development across different developmental stages. In addition, comparative studies involving formal and non-formal art education environments would contribute to a more comprehensive understanding of how different learning contexts influence the development of children's visual characteristics.

CONCLUSION

This study shows that children aged 4-6 years at Privart Studio exhibited visual development after participating in a six-month drawing program. This development encompassed the elements of line, shape, color, and space, although it unfolded differently for each individual based on their initial abilities and learning conditions. These individual differences in development indicate that children's visual development is not uniform but is influenced by age, learning experiences, as well as emotional states and levels of concentration during the learning process. Structured and sustained non-formal visual arts education can provide positive stimulation for the visual development of children aged 4-6 years. Methodologically, the findings of this study suggest that a longitudinal approach can provide a more in-depth picture of development compared to cross-sectional observations, making it a valuable consideration for future research on children's art education.

REFERENCES

- Bai, L., Li, Z., & Liu, Y. (2022). *Developing Visual Art Education in Early Childhood Education*.
- de Groot, B., Gorr, N. D., Kret, M. E., Rieffe, C., Tsou, Y.-T., & Straffon, L. M. (2023). Development and preliminary validation of a questionnaire to measure parental support for drawing. *Thinking Skills and Creativity*, 47, 101228.
- Gil-Ruiz, P., Martinez-Verez, V., Ospina Toro, W., & Castañeda Marulanda, W. (2025). Children's drawing and graphic development: An empirical study of the developmental stages according to Lowenfeld. *Education Sciences*, 15(6), 681.
- Gunadi, G. (2012). Kemampuan Memvisualkan Teks verbal dalam Bentuk Gambar. *Chatarsis : Journal of Arts Education*, 1(1).
- Hamka, D. W. (2023). Analisis karya gambar siswa sekolah dasar berdasarkan teori perkembangan seni rupa anak viktor lowenfeld. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 8(1), 2220–2232.
- Hanifaratri, A. S., Sugiarto, E., & Syakir, S. (2025). Creativity In Drawing For Alpha Generation Children To Enhance Creative Potential. *Catharsis*, 14(2), 107–118.
- Heaton, R. (2024). Nurturing cognition through children's early drawing experiences. *International Art in Early Childhood Journal*, 2023(1), 1–16.
- Hiçyılmaz, Y. (2024). An Examination of Parental Support for Children's Drawing Skills. *International Journal of Progressive Education*, 20(6).
- Long, B., Fan, J. E., Huey, H., Chai, Z., & Frank, M. C. (2024). Parallel developmental changes in children's production and recognition of line drawings of visual concepts. *Nature Communications*, 15(1), 1191.
- Marinda, L. (2020). Teori perkembangan kognitif Jean Piaget dan problematikanya pada anak usia sekolah dasar. *An-Nisa' Journal of Gender Studies*, 13(1), 116–152.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). SAGE Publications.
- Nurcahyo, L., & Lodra, I. N. (2022). Visual Characteristics of Drawings from Students in Lower Grades of Elementary School. *JPP (Jurnal Pendidikan Dan Pembelajaran)*, 29(1), 14–21.
- Pamadhi, H. (2014). *Materi Pokok Seni Keterampilan Anak*. Universitas Terbuka.
- Patriani, S. R., Oktaviani, R. T., & Choirunisak, C. (2025). Analisis gambar anak sekolah dasar ditinjau dari unsur-unsur seni rupa: Gambar anak, seni rupa, analisis visual. *Jurnal Pendidikan: Riset Dan Konseptual*, 9(4), 1065–1073.
- Philippsen, A., Tsuji, S., & Nagai, Y. (2022). Quantifying developmental and individual differences in spontaneous drawing completion among children. *Frontiers in Psychology*, 13, 783446.
- Podobnik, U., Jerman, J., & Selan, J. (2024). Understanding analytical drawings of preschool children: the importance of a dialog with a child. *International Journal of Early Years Education*, 32(1), 189–203.
- Prayitno, P., Harun, H., Syamsudin, A., & Zubaedah, S. (2025). An Analysis of Children's Visual Artworks Through Free Drawing in Children Aged 5 – 7 Years. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 10(September), 533–547.
- Putri, D. A. J., Basri, N., & Nuraini, E. (2025). Traditional Art Activities as a Neuroscience-Based Counseling Approach to Foster Emotional Development in Early Childhood. *Catharsis: Journal of Arts Education*, 14(2).
- Qomariah, N. F., Na'imah, N., Sari, R., & Suhendro, E. (2025). „Seni Rupa Sebagai Media Komunikasi Emosional Untuk Anak Usia Dini: Studi Kualitatif“. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 9(5), 1298–1305.
- Reagan, I. (2024). *Drawing from Perspective: An Exploration of Children's and Teacher's Perceptions of Visual Art in the Early Childhood Curriculum*. UCL (University College London).
- Rengganis, I. (2017). Analisis Gambar Karya Anak Sekolah Dasar (Karakteristik Gambar Anak Usia 7–9 Tahun). *Pedagogia*, 15(1), 49–73.
- Richards, R. D. (2019). Valuing children's explorations of their visual worlds—learning from example. *International Art in Early Childhood Research Journal*, 1, 1–17.
- Straffon, L. M., de Groot, B., Gorr, N. D., Tsou, Y.-T., & Kret, M. E. (2024). Developing drawing skill: Exploring the role of parental support and cultural learning. *Cognitive Development*, 70, 101444.
- Yuningsih, C. R. (2022). Rancangan Kurikulum Sanggar Seni Rupa Anak Usia Dini. *Jurnal Visual Ideas*, 2(1), 19–26.