Exploring Age-Related Variances in Children's Appreciation of Literature, Music and Visual Art

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Abstract

Art is an important aspect of life as it reflects identity, connects cultures, and serves as a tool to express oneself (Kuster, 2006; Rathwell & Armitage, 2016; Chilton, 2015). It also plays a role in individual development and affects one's quality of life (Chakravarty, 2003). The present study uses a mixed-method approach to investigate the variance in art appreciation across different age groups. Participants ($N = 63$), aged 6 to 17, engaged in the experiment as dyads. The study compares different levels of art appreciation across various forms of art. This will be done through both quantitative and qualitative analysis. Drawing upon the most recent literature, I expect a more profound appreciation of art with older children. I anticipate no differences in the overall appreciation of art across various art forms, but I do expect age-related differences within each form of art. The results were based on a questionnaire, a structured conversation and another questionnaire. The findings suggest that there is no age- or art form-related variance in art appreciation. However, due to limitations, the age-related variances within the different art forms could not be investigated. In spite of that, this study contributes to the research field of art and psychology. Future research may focus more on characteristics and their influence on variance in art appreciation, instead of solely focusing on age differences.

Keywords: art appreciation, mixed-method approach, children, sense-making.

Exploring Age-Related Variances in Children's Appreciation of Literature, Music and Visual Art

Every individual, every culture, and therefore the worldwide society is marked by their development (Hai-yan, 2008). Development is of universal relevance; it disregards age and race. The level of individual development, in other words, the individual growth and change throughout one's life, is connected to the quality of life as educational chances, healthcare, and well-being are affected by individual development (Chakravarty, 2003). Comprehensive understanding of development is crucial for realizing one's full potential. When parents and teachers possess the knowledge to effectively support a child's growth, it can be beneficial for their adult life (National Research Council, 2001).

Art holds a pivotal role in individuals' lives, providing a means for personal and cultural expression (Olender, 2015). One can express their emotions or opinions through art, but also express their group identity and for example their beliefs (Chilton, 2015). Art is perceived as a prominent element of our identity as changes in artistic preferences may alter individuals (Fingerhut, 2011). Next, art is there to inspire people, to think about things differently and to inspire them to create new things or views (Brooks, 2014). Art also serves as an instrument to connect different nations worldwide (Rathwell & Armitage, 2016). Art is even beneficial for learning, it might challenge you to think critically and can make you aware of different cultures as well as it can make you accept or just view other perspectives (Kuster, 2006). Appreciating art is crucial to connect with other identities as it may reflect our own identity (Kuster, 2006). It contributes to the diversity of the community. Therefore, art has the ability to shape people perceptions' and understanding of the world and human existence (Vuyk, 2010). Consequently, it plays a multidimensional role in shaping society. As such, it stimulates, nurtures, and creates meaningful experiences for individuals. In the light of these

considerations, the present study seeks to explore the developmental aspects of children's evaluation processes across various forms of arts.

Literature Review

Art Appreciation

The concept of art appreciation goes beyond mere liking or valuing an object; it involves delving into the artistic meaning and exploring different levels of meaning. Appreciation of art is the process of becoming aware of artistic values, it can be taught and learned by individuals (Nicol, 1969). Appreciating music, literature or visual objects involves perceiving and recognizing their value and meaning and feeling an optimistic personal connection to them (Adler & Fagley, 2005). Additionally, the emotional engagement with an art object is often considered a meaningful aspect of an art experience (Brook, 2022).

Appreciating art can also be broken down by semiotic strategies of sense-making (van Dorsten, 2015). Sense-making is acknowledged as the process through which people understand and give meaning to events (Urquhart et al., 2020). It is stated that objects are 1) perceived, one recognizes an object as a result of sensory information, followed by 2) imagination, one can think of different possibilities on how to utilize the object. The third strategy comprehends 3) conceptualization, one categorizes the object into a broader concept stored in ones' memory. Lastly, 4) analysis of an object takes places, which means one generates new knowledge and fabricates their personal framework towards the object (van Dorsten, 2015). To apply the theory in a practical context these aspects will be assessed through a questionnaire.

Art Appreciation and Developmental Theories

Yet, there is no comprehensive theory on the connection between art appreciation and development (Goldstein, 2019). However, several influential psychological and educational theories touched upon this relationship, highlighting its importance. For example, theories from Piaget (Lefa, 2014), Vygotsky (Connery et al., 2010; Kozhemvakin, 2018), Gardner (Sheoran & Sangwan, 2018), Maslow (Greene and Burke, 2007; Maslow, 1998) and Parsons (1998).

According to Piaget (Lefa, 2014), the preoperational stage (2-7 years) of children is characterized by acquiring the skill of interpreting multiple perspectives, children learn to see things from another point of view (Lefa, 2014), this could be linked to art because art stimulates viewers to think of other perspectives (Kuster, 2006). On the other hand, Vygotsky's theory (Lantolf, 2000) focuses on the cultural and social aspects of development. Art might make people aware of different cultures, and appreciating and developing a culture on your own could also be connected to art. According to Vygotsky (Connery et al., 2010), imagination, children's play, and fantasy are part of creativity, which is also linked to art (Connery et al., 2010). More recently, the development of art as viewed by Vygotsky is acknowledged as an important aspect of developing emotional intelligence, which is a critical element in a professional career, stressing its importance (Kozhemyakin, 2018).

Additionally, Gardner (Sheoran & Sangwan, 2018) divided intelligence into nine different types, with one of them being visual-spatial intelligence. It is argued that spatial intelligence, being able to mentally represent an object, is linked to rehearsing visualization strategies, like artwork, photography, and even drawing in class (Sheoran & Sangwan, 2018). Contemporary literature stresses that spatial intelligence should be stimulated as it may be a tool to be successful in other areas of life (Sheoran & Sangwan, 2018). Another big theory touches upon the subject, namely Maslow's theory (Greene & Burke, 2007; Maslow, 1998).

This theory discusses a hierarchy of needs, with self-actualization being the highest need (Greene & Burke, 2007). Self-actualization is among others characterized by the freedom to realize one's own ideas (Maslow, 1998). In other words, self-actualization is associated with creating new things, which might become art. Lastly, Parsons (1998) wrote a collection on different approaches to child development in art over the years. He emphasized the importance of social influences on children's perspective, which makes art development cultural dependent. It is noted that children's perception changes with age, emphasizing the need for considering developmental stages when studying artistic experiences in children (Parsons, 1998).

In consideration of art in educational settings, it is argued that visual art provides children with important tools for thinking and learning (Terreni, 2010). It is prioritized that teachers promptly intervene in art learning experiences, it urges teachers to know how to guide children most effectively, and therefore knowledge about age differences in art development is needed (Terreni, 2010).

Regardless of the literature gap of a comprehensive theory, Goldstein (2019) made a significant undertaking in including a developmental perspective to investigate children's appreciation of art. Art appreciation and its relation to child development is organized in three ways; by age, by art forms, and by aesthetic property (Goldstein, 2019). That is why in this study these factors were combined. An additional finding in the literature is that human artistic preferences are unstable (Pugach, 2017). This might suggest that there will be no pattern in what age group prefers certain art forms.

Goldstein (2019) pointed out that there is a need for a unified theory in the development of art appreciation. Yet, there is no understanding of how humans develop from looking at art as a child to an adult level of art appreciation (Goldstein, 2019). This leaves a

window for research, aiming to find a structure in the development of appreciation across different forms of art. The age of children, which indicates developmental stages, will be used to find a structure, as this was stressed by former literature to take into account.

The Present Study

To summarize, there are many links to be found between developmental theories and art. However, it remains unclear how everything is connected as a whole. This study is designed to uncover structure in the development of art appreciation.

The study centers around three forms of art because they can more easily be brought to a lab or another experimental setting. This ensures ecological validity and narrows down the focus of this study. It will investigate art appreciation of literature, music, and visual arts across development. In this study, literature can be understood as a diary, a poem, a letter, and books with different levels of depth. Music can be songs, melodies or instruments. Lastly, visual arts are broad. This could be drawings, posters, photographs, or statues. The biggest criterion for visual art is the function of being looked at. I acknowledge that theater and dance are other forms of art, but they are harder to undergo isolation within laboratory environments (Goldstein, 2019).

The present study employs a mixed-method approach to make sense of the complex phenomenon of art appreciation across developmental stages. Participants from 6 to 17 years old are invited to the experiment and to bring a buddy who would like to co-participate with them. During the experiment, participants answered a questionnaire about their experience related to the artificial objects, engaged in a conversation, and answered the same questionnaire again.

This approach will help us investigate the following hypotheses:

Hypothesis 1. Children with higher cognitive development, as indicated by their age, will exhibit a more profound and extensive appreciation of art.

Hypothesis 2. The overall appreciation of three distinct forms of art will be consistent among participants.

Hypothesis 3. Variations in appreciation of each separate art form within groups categorized by different levels of cognitive development, as indicated by their age, will be expected.

Methods

Participants

The sample consisted of 63 participants, with one participant participating twice (32 dyads). Ages ranged from 6 to 17 ($M = 11$, $SD = 3,5$). Participants were recruited through convenience sampling within the network of the research group and snowballing sampling. Recruitment methods included advertisement through the Zpannend Zernike festival, as well as directly contacting parents and collaborating with both primary and secondary schools in the northern Netherlands, particularly Groningen. A reward for participation was given in the form of a Pimm voucher of 10 euros offered to the participant. Participants were also given the choice to donate the money to a participating school instead.

Materials

Materials were either in Dutch or English as indicated by the preferred language of the participants. The participants (or their parents, if the child was younger than 16 years old) were asked to give their informed consent via the registration form, which was created using Qualtrics (https://www.qualtrics.com). The registration form asked for basic demographic information such as the participant's name, the name of their buddy as well as their relation to

each other. The participants were asked to bring an item with personal meaning to them and share a picture of said item (if applicable) with the researchers before the experiment.

The questionnaires used during the experiment were also created in Qualtrics. The questionnaire would be completed twice by every participant during the study. Notably, two different questionnaires were made, one fitting for participants between 6 to 11 years old and one for participants between 12 and 17 years old. The difference includes graphics that illustrate the questions for the younger participants, so it was easier to understand.

Next, some technical materials were used. A laptop which was connected to a camera (2- Logitech BRIO) to record the conversations, while the prompts (which guided the conversations) were displayed on a monitor for the participants to see.

The experimental room required a specific set-up. See Figure 1. On the left side of the map, it can be seen that there are two seats, which were the participants' spots to fill out the questionnaire. On the right side of the map, one of the researchers can take place together with the laptop and all materials that are required to complete a sufficient recording and guide the conversation. In between there is space and a table, which this required to invite the participants to the front for the conversation part of the study, in which the brought objects can be presented on the table and discussed. This set-up can be realized in every room available for the experiment, it is not restricted to take place in an official experimental lab.

Figure 1

Set-up of experimental room.
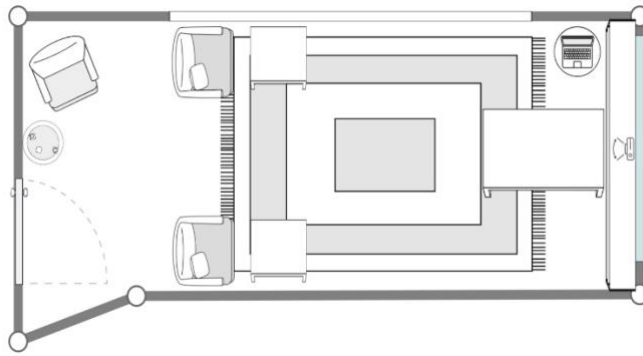
Procedure

The study was approved by the Ethics Committee Behavioural and Social Sciences of the University of Groningen (PSY-2223-S-0252) and is in line with the Dutch ethical standards for scientific research. The experiment began with the researchers welcoming the two participants into the experimental room in the university lab, or the experimental setup at the participants' home, school, or community institution. An explanation was given to the participants on what they could expect from the experiment and the participants were seated some distance apart from each other in order to avoid distraction. They were asked to first spend at least 30 seconds familiarizing themselves with the object in front of them before starting on the survey. Whether the participant viewed their own or their buddy's object first varies for each dyad of participants to prevent order effects (Shaughnessy et al., 2000). Depending on the reading proficiency of the participant, the researcher assisted in filling out the questionnaire, by reading or explaining by reading or explaining the questions out loud. After the children completed the first section of the questionnaire, they were prompted to exchange their objects and move on to the next section. Once both participants finished filling out their questionnaire, they were asked to relocate to the camera's field of view for the conversation phase of the study. Once the participants had settled for the interview, the recording was started. The researcher in the experimental room read each prompt out loud to

the participants and gave them two minutes to discuss each prompt. During the interview, the researcher took into consideration how the participants were feeling; if needed, the researcher let the participants take a break or have a quick snack. After all prompts had been discussed, the researcher in the control room stopped the recording and saved the encoded files. The participants were invited to sit and fill in the post-conversation questionnaires. The format and order of these questionnaires were the same as those of the questionnaires that were filled in before the interview section. The experiment was officially concluded, after both participants had filled in the second questionnaire. The researcher in the experimental room thanked the participants for their participation and walked them out of the experiment room. Transcripts of the recordings were written and translated by hand by one researcher, then translated back into the original language by another, to ensure that the meaning was not lost during translation (Brislin & Freimanis, 2001)

Quantitative Measures

Semiotic Dimension

The sense-making process while engaging with the objects is assessed by a semiotic dimension. This is in the form of a questionnaire (see Table 1, adapted from van Dorsten & van Klaveren, 2023) and during a recorded dyadic interaction. With different scales for younger (6-11 y.o.) participants, ranging from 1 to 3 and older participants (12-17 y.o.), ranging from 1 to 5.

Table 1

Questions in the questionnaire assessing semiotic strategies.

Semiotic strategy	Questions starting with: "This item invites me to…
Perception	… to observe, touch, smell, taste or listen to it."

	… to feel or experience things."
Imagination	… to be in a different world."
	… to express myself in my own way."
	… to come up with new ideas or designs."
Conceptualization	… to share an idea or a story."
	… to understand what it means in the context."
	… to show to which group/community I belong."
Analysis	… to discover things about myself or the world."
	… to explore how or why it was made."

Age

Age groups were created according to the participants' education level, resulting in 4 groups: (1) from 6 to 9, (2) from 10 to 12, (3) from 13 to 15, and (4) from 16 to 17 years of age. See Table 2 for the age distribution of participants.

Table 2

Number of participants per age group.

6 to 9 years old	$N = 19$
10 to 12 years old	$N = 12$
13 to 15 years old	$N = 4$
16 to 17 years old	$N = 9$

Type of Artwork

Categories were created according the type of artwork participants brought as stimulus, resulting in 3 groups: (1) musical objects, this could be songs or actual musical instruments, (2) literature, this can be books, poems and self-written texts like a diary or story,

and (3) visual objects, which are objects with the criteria of being utilized by looking at them, like picture, post-card, figurines, or even stuffed animals.

Qualitative Measures

Coding Scheme

All audio recordings were transcribed and put into one document enabling consequent analysis of the participants' answers. Thematic analysis was used as a method to identify, analyze and report patterns in the transcripts (Braun & Clarke, 2006). After researchers familiarized themselves with the data, themes could be identified, namely, appreciation and liking. Appreciation towards the objects is a broad theme and can be refined by main codes as 1) expressiveness 2) emotional responses and 3) personal connection (Adler, 2005). Liking can be through the sensory experiences or valuing aesthetic aspects. The full coding scheme can be seen in Appendix A.

Results

Quantitative analysis

This section focuses on analyzing the quantitative part of the data, by checking for internal consistency and assumptions followed by conducting the Kruskal-Wallis test to compare various groups. All analyses have been carried out with Excel (Version 2108) and SPSS (Version 28.1.0).

Internal Consistency Assessment of Semiotic Strategies Questionnaire

The final sample size included 64 participants (32 dyads). Before conducting analyses, we aggregated multiple questions (i.e.: items) of the questionnaire measuring the same construct into four new variables, namely Perceptual strategy (4 Items), Imaginative strategy

(6 Items), Conceptual strategy (6 Items), and Analytical strategy (4 Items). We calculated Cronbach's alpha of all variables; a score higher than .7 suggests an acceptable level of internal consistency, ensuring that different items measured the same construct (Tavakol & Dennick, 2011). The measured internal consistency for perception (α = .66), imagination (α = .77), conceptualization (α = .73), and analyzation (α = .70) suggest a reasonable level of internal consistency for all constructs.

Assumptions Check

Subsequently, we sought to ensure that the data were satisfactory for the considered statistical test. However, the normality of the data was not confirmed by the Shapiro-Wilk test (see Table 3). Linearity between age and the four constructs was also not observed. This indicates the data are not suitable for parametric tests. The Kruskal-Wallis test, a non-parametric test, is robust against violation of normality. Therefore, it can be used to identify significant differences between independent groups. The test still requires attention to other assumptions. To assess the homogeneity of variances, Levine's test was calculated; the non-significant results indicate that the assumption of equal variances is met. Additionally, assumptions of independence were met as the data were collected from independent subjects. The study design ensures that the responses of one participant did not influence or depend on the responses of other participants within the same group. Therefore, both assumptions necessary for the Kruskal-Wallis test are satisfied.

Table 3

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.

Perception	,955	128	<,001
Imagination	,972	128	,010
Conceptualization	,964	128	,002
Analyzation	,959	128	<,001

Pre-analysis

The following step was synchronizing the data. I converted the data of the older participants for it to be in line with the data of the younger participants. This is because it is convenient for my research to make the data congruent. A '1' means the same in both questionnaires. A '2', '3' and a '4' in the questionnaire for older participants is equivalent to a '2' in the questionnaire of the younger participants and these scores are therefore converted to '2'. Similarly, a '5' became a '3'. Secondly, I split the data, therefore the scores on the semiotic strategies would correspond to one object instead of two. This is necessary because I want to discriminate between the kind of objects. Third, I took the average of all the questions that measured a single semiotic strategy.

Quantitative Results

The displayed results in Table 4 show no significant differences between the age groups and their score on perception, imagination, conceptualization, and analysis. However, Table 5 shows a notable distinction between the type of object and the way perception is scored. This means that either visual, musical or literate objects elicit a different level of perception, a semiotic strategy characterized by recognizing objects through sensory information. Visualization by a box-plot in Figure 2 reveals that visual objects tend to have a more spread-out score on perception than musical and literature-related objects do. Furthermore, no significant differences were found between the types of objects and other semiotic strategies.

Table 4

Kruskal- Wallis test Age Groups – semiotic strategies.

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of Perception is the same across categories of AgeGroups.	Independent-Samples Kruskal-Wallis Test	,297	Retain the null hypothesis.
2	The distribution of Imagination is the same across categories of AgeGroups.	Independent-Samples Kruskal-Wallis Test	,922	Retain the null hypothesis.
3	The distribution of Conceptualization is the same across categories of AgeGroups.	Independent-Samples Kruskal-Wallis Test	,110	Retain the null hypothesis.
4	The distribution of Analyzation is the same across categories of AgeGroups.	Independent-Samples Kruskal-Wallis Test	,737	Retain the null hypothesis.

a. The significance level is ,050.

b. Asymptotic significance is displayed.

Table 5

*Kruskal-Wallis test Type of Object – semiotic strategies.*

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of Perception is the same across categories of TypeObject.	Independent-Samples Kruskal-Wallis Test	,033	Reject the null hypothesis.
2	The distribution of Imagination is the same across categories of TypeObject.	Independent-Samples Kruskal-Wallis Test	,157	Retain the null hypothesis.
3	The distribution of Conceptualization is the same across categories of TypeObject.	Independent-Samples Kruskal-Wallis Test	,239	Retain the null hypothesis.
4	The distribution of Analyzation is the same across categories of TypeObject.	Independent-Samples Kruskal-Wallis Test	,623	Retain the null hypothesis.

a. The significance level is ,050

b. Asymptotic significance is displayed.

Figure 2

Box-plot: Perception – Type of Object.
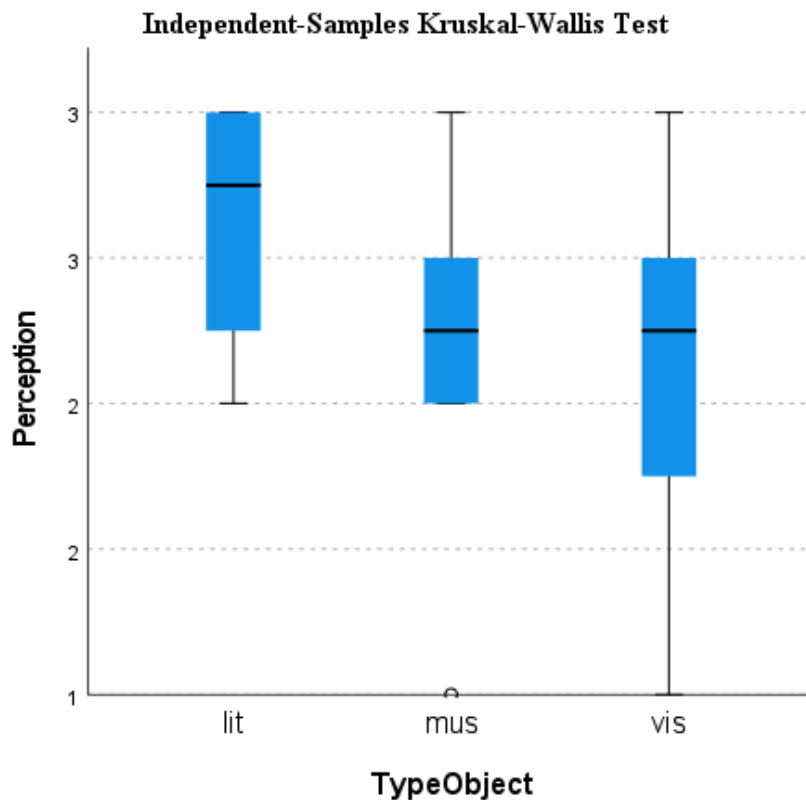
Qualitative Analysis

The qualitative analysis involves a smaller final sample size of 22 dyads ($N = 44$) due to data loss primarily due to technical issues. Despite the reduction, it meets the minimum criterion of 12, ensuring a robust qualitative analysis (Braun & Clarke, 2013). However, the analysis is constrained to the exploration of age group variations. The transcripts predominantly concentrate on visual objects, with only two instances related to literature and three instances related to music. This narrow focus on visual objects proves inadequate for

conducting thorough comparisons. Furthermore, an uneven distribution among the age groups is evident, as illustrated in Table 2.

The data was analyzed according to a thematic analysis (Braun & Clarke, 2006). The procedure for thematic analysis is described in the methods section and the coding scheme is presented in appendix A.

Besides categorizing all data according to the identified themes, it was classified along age groups. Table 6 provides some examples of this classification. For every theme, quotes were found accros all age groups. It was noted that there is a greater number of citations in age group 6 to 9 years old than in other age groups.

Table 6

Examples of the thematic analysis.

	Q: 'Can you tell us why you brought the object?'
6 to 9 years	P07: "I brought my stuffed animal because I thought it was special because one time I was in an amusement park and I didn't feel very well and also a bit alone because my mom and dad went to chat and my sister and her boyfriend went chatting so I felt a bit alone and then my mom noticed that and then she bought this one for me." P50: "I took this picture because I'm really happy with it."
10 to 12 years	P06: "My grandma always had this figurine with her, she has two of those. Well, she had two of them, one black and one pink, and when she passed away we both got such a kitten. I have the pink one and my sister has the black one." P46: "Because I got this one myself from the… uhm, guitarist."

13 to 15 years	P09: "Uhmm, because this is basically the most meaningful thing I have, I made this together with my friends from primary school uhhmn and they are all somewhere different than I am. I am here right now, one of them is in Australia and everybody is very far away from each other. And when I see this, all the memories of us together pop up." P17: "Well, um, yeah, I took it from, um... an exchange card, it was to Italy, and we were in Venice. So, it's a nice memory."
16 to 17 years	P20: "Well, and especially the last part has personal meaning for me, and yeah, I just think it's absolutely beautiful. It's for me, I've been a fan of Freddie Mercury for a long time and this song is really their…, their song so to speak. It is also really seen as the best song maybe ever. And yeah, that made me think I would take it here too." P018: "I took it because it's from my vacation, so yeah, it's just a nice memory of where I've been."

Note: 'Q' = Question asked as conversational prompt. PXX = participant number.

As the exploration of art appreciation across age groups and varied art forms is concluded, there is a need for a deeper discussion on the implications, potential applications, and suggestions for further research in the following section.

Discussion

Art Experience and Semiotic Strategies

The quantitative analysis revealed that no significant differences exist between age groups and the assessed semiotic strategies nor among the type of objects. However, a box-plot (Figure 2) highlights a difference in the perception of visual objects compared to musical or literary objects. It is crucial to note that the number of musical and literary objects is

considerably lower than that of visual objects; as unequal sample sizes can lead to biased results, we suggest caution in drawing a definitive conclusion from this difference (Chao, 1982). Moreover, this difference is observed solely in one semiotic strategy, namely perception, and not in others, like imagination, conceptualization, and analysis.

An alternative explanation could be that the few literary and musical objects always invited participants to 'listen', 'observe' or 'touch' them and therefore as well experience them, as assessed by the perceptual questions. The participants were obligated to familiarize themselves with the objects, so it might be that the few musical objects, such as a song by Queen, drumsticks, and a flute, and the few literary objects, such as diaries, always invited those specific sensory interactions. The diverse nature of visual objects, such as a football, a LEGO block, a family picture, or a postcard, did not necessarily invite the participant to interact with them, resulting in broader responses than for the other types of objects.

Age

The quantitative and qualitative assessment indicated no significant age-related variations in art appreciation. Initially, it appeared that the qualitative analysis revealed more quotes labeled in the coding scheme for participants between 6 and 9 years old. However, upon closer examination of the answers, it becomes evident that this was due to fragmented responses. These age-related nuances in the responses suggest that younger children may require more prompting to elaborate on their perceived value and emotional connections to art objects.

For example, P16 is 9 years old; when he was asked to explain why he brought the object, the answer was: "I like it because I like it." The researcher asked why he liked it, followed by the answer: "Because uhm, it takes a long time to make and then when you, when you, had nothing to do you could just make that." Both quotes would be labeled separately in

the coding scheme as they were two different answers. In contrast, P35 is 16 years old and answered the same question with the following: "Well, I didn't make it myself, haha, I can't do that. But I thought something I really like, is spray paint, and this was made by a friend of ours. I find it impressive how you can create something like this." This answer did not require a follow-up question by researcher, and therefore there is only one quote labeled in the coding scheme. Due to the young age of the participants, they potentially have a smaller vocabulary, limiting their ability to articulate their relationship with the object (Duff et al., 2015). Consequently, younger children often required more prompting through additional questions to elaborate on the reasons for their perceived value.

Type of Artwork

The quantitative data supports the hypothesis that there are no significant differences in art appreciation across various forms such as literature, visual art, and music. However, the qualitative analysis lacks sufficient output for comparing appreciation levels for musical or literary objects, highlighting a gap in the understanding of the nuances within each art form. Nonetheless, as discussed previously, it can be stated that the literary and musical objects in this study seem to lead to sensory interaction more often than the visual objects do.

Art Appreciation

The qualitative analysis also indicates no significant differences in art appreciation among different age groups. Furthermore, responses from all participants frequently mentioned attached memories. This refers to the aspect 'personal connection' of the theme appreciation. For example, P07 tells the researchers about where, when and why he received his stuffed animal: "I brought my stuffed animal because I thought it was special because one time I was in an amusement park, and I didn't feel very well, and also a bit alone because my mom and dad went to chat, and my sister and her boyfriend went chatting, so I felt a bit alone

and then my mom noticed that, and then she bought this one for me." This is one of many

quotes reflecting the personal connection towards an object as main reason for appreciating it.

In our study, we asked participants to bring an object that was valuable to them;

however, other research took it a step further and investigated people's relation to their

favorite objects. They found that the key factor for attachment towards an object lies in the

personal meaning and reflection of the object (Wallendorf & Arnould, 1988). This similarity

underscores the importance of personal significance in shaping individuals' connections to

objects in both studies.

Hypotheses

Regarding the hypotheses, the first one stating that older children possess a more

extensive and profound appreciation of art lacks support from both quantitative and

qualitative data. The results do not align with this statement. Conversely, the second

hypothesis, which predicts no differences in art appreciation across various forms such as

literature, visual art, and music, finds support in the quantitative data. No results suggest

variations between groups categorized by the type of objects. The third hypothesis, suggesting

variations in the appreciation of each separate art form within different age groups, could

neither be confirmed nor refuted by the data.

Strengths and Limitations

It is important to acknowledge the strengths and limitations of this study. A strength is

the study design, which entails a mixed-method approach. This was useful to grasp the

complete phenomenon of art appreciation (Östlund et al., 2011), as it integrates quantitative

and qualitative research methods leading to a rich dataset. Additionally, qualitative research is

an important method when working with children. For instance, clear communication and

ensuring confidentiality are prioritised (Matthews et al., 1998). This study incorporated these aspects. Another strength is the natural look of our experimental rooms, as explained in the methods section. It provides a comfortable setting and makes children feel at ease, which is favorable to effective communication (Matthews et al., 1998). However, a significant limitation in this research is that the coding scheme was created by one researcher and was not agreed upon by multiple researchers. This limits the robustness of the qualitative results (Levitt et al., 2017).

Implications and Future Research Directions:

Art appreciation does not develop in a linear way with age, as observed across both adults and children (Pugach, 2017). Pugach (2017) explored appreciation across the entire lifespan, while the present study is an exploration across developmental stages from age 6 to 17. However, the results align in the fact there is no consistent pattern found in art appreciation along with age. Moreover, literature suggests that understanding and appreciating artwork require time (Leder et al., 2006). Given that participants brought their objects, it can be assumed that they are familiar with them, encouraging appreciation. Despite that, participants also viewed an object that they were not familiar with. Regrettably, our study missed an opportunity to examine the distinct appreciation of objects brought by the participants themselves versus those brought by their peers. As the study design does allow for such comparison, this might comparison might be examined by future research.

Additionally, our findings harmonize with a study that assessed aesthetic value towards art in both young and older children, revealing no significant differences (Schabmann et al., 2016). Schabmann et al., (2016) analyzed beauty ratings between two groups: young children from 4 to 7 years old and older children from 9 to 11 years old. The results show no differences in the aesthetic aspect of art appreciation, which is line with the finding of the

present study. The result of Schabmann et al. (2016) is similar to our finding regarding the theme 'liking' in the qualitative analysis of our research, as we did not find age related differences.

In reflection of the data and interview experiences, a valuable suggestion emerges: rather than exclusively focusing on age groups and their variance in art appreciation, future research may benefit from a shift towards examining individual characteristics (Furnham & Chamorro-Premuzic, 2004). Notably, our observations reveal that expressive young children often articulate more about their connection to objects compared to the more introverted participants. However, it is essential to acknowledge that our study solely measured 'Openness to Experience' as a characteristic, and this specific trait was not subject to detailed analysis in this specific study. The personality trait 'Openness to Experience' has the greatest relation to art experience (Myszkowski et al., 2014). However, other research suggests multiple connections between personality traits and art appreciation (Furnham & Chamorro-Premuzic, 2004). Therefore, as a recommendation for future research, an approach involving the measurement of various characteristics could possibly uncover nuanced differences among groups defined by these traits and their respective levels of art appreciation.

Conclusions

Overall, our study revealed that there were no significant age-related differences in art appreciation. However, we did observe that musical and literary objects seemed to evoke more sensory interaction compared to visual art. It is important to note that this observation pertains only to one of the four semiotic strategies used to interpret art, so it does not state that different forms of art, lead to different levels of appreciation. Furthermore, our qualitative analysis enlightened those personal connections and memories mainly shape children's

appreciation of art. Moving forward, future research could enrich our understanding by integrating personality traits into the exploration of art appreciation development.

References

Adler, M. G., & Fagley, N. S. (2004). Appreciation: individual differences in finding value and meaning as a unique predictor of subjective Well-Being. *Journal of Personality*, *73*(1), 79–114. https://doi.org/10.1111/j.1467-6494.2004.00305.x

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Brislin, R. W., & Freimanis, C. (2001). Back-translation. *An Encyclopaedia of Translation: Chinese-English, English-Chinese*, *22*.

Brook, L. (2022). Evaluating the emotional impact of environmental artworks using Q methodology. *Athens J. Humanit. Arts*, *9*, 211-232.

Brooks, M. (2014). Art is about 'Big Ideas'. *Every Child*, *20*(1), 12-13.

Chakravarty, S. R. (2003). A generalized human development index. *Review of development economics*, *7*(1), 99-114. https://doi.org/10.1111/1467-9361.00178

Chao, M. T. (1982). A general purpose unequal probability sampling plan. *Biometrika*, *69*(3), 653-656. https://doi.org/10.1093/biomet/69.3.653

Chilton, G., Gerber, N., Bechtel, A., Councill, T., Dreyer, M., & Yingling, E. (2015). The Art of Positive Emotions: Expressing Positive Emotions Within the Intersubjective Art Making Process (L'art des émotions positives: exprimer des émotions positives à travers le processus artistique intersubjectif). *Canadian Art Therapy Association Journal*, *28*(1-2), 12-25. https://doi.org/10.1080/08322473.2015.1100580

Clarke, V., & Braun, V. (2013). Successful qualitative research: A practical guide for beginners. *Successful qualitative research*, 1-400.

Connery, M. C., John-Steiner, V., & Marjanovic-Shane, A. (Eds.). (2010). *Vygotsky and creativity: A cultural-historical approach to play, meaning making, and the arts* (Vol. 5). Peter Lang.

van Dorsten, T. (2015). *Mirrors in the making: Culture, education, and the development of metacognition in early and middle childhood (4-10).* [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

Duff, D., Tomblin, J. B., & Catts, H. (2015). The influence of reading on vocabulary growth: A case for a Matthew effect. *Journal of Speech, Language, and Hearing Research*, *58*(3), 853-864. https://doi.org/10.1044/2015_JSLHR-L-13-0310

Fingerhut, J., Gomez-Lavin, J., Winklmayr, C., & Prinz, J. J. (2021). The aesthetic self. The importance of aesthetic taste in music and art for our perceived identity. *Frontiers in Psychology, 11,* Article 577703. https://doi.org/10.3389/fpsyg.2020.577703

Furnham, A., & Chamorro-Premuzic, T. (2004). Personality, intelligence, and art. *Personality and individual differences*, *36*(3), 705-715. https://doi.org/10.1016/S0191-8869(03)00128-4

Goldstein, T. R. (2019). Children's Appreciation of Art. https://doi.org/10.1093/oxfordhb/9780198824350.013.39

Greene, L., & Burke, G. (2007). Beyond self-actualization. *Journal of health and human services administration*, 116-128. http://www.jstor.org/stable/41288077

Hai-yan, L. (2008). The Development of Individual From Marxism Perspective. *Journal of Harbin University*.

Kozhemyakin, M. (2018, December). The Development of Emotional Intelligence by Means

of Art. In *International Conference on the Development of Education in Russia and

the CIS Member States (ICEDER 2018)* (pp. 57-61). Atlantis Press

http://dx.doi.org/10.2991/iceder-18.2018.11

Kuster, D. (2006). Back to the basics: Multicultural theories revisited and put into

practice. *Art Education*, *59*(5), 33-39.

https://doi.org/10.1080/00043125.2005.11651609

Lantolf, J. P. (2000). Introducing sociocultural theory. *Sociocultural theory and second

language learning*, *1*, 1-26.

Leder, H., Carbon, C. C., & Ripsas, A. L. (2006). Entitling art: Influence of title information

on understanding and appreciation of paintings. *Acta psychologica*, *121*(2), 176-198.

https://doi.org/10.1016/j.actpsy.2005.08.005

Lefa, B. (2014). The Piaget theory of cognitive development: an educational

implications. *Educational psychology*, *1*(1), 1-8.

Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017).

Recommendations for designing and reviewing qualitative research in psychology:

Promoting methodological integrity. *Qualitative Psychology, 4*(1), 2–

22. https://doi.org/10.1037/qup0000082

Maslow, A. H. (1998). *Maslow on management*. John Wiley & Sons.

Matthews, H. (1998). The geography of children: Some ethical and methodological

considerations for project and dissertation work. *Journal of geography in higher

education*, *22*(3), 311-324. https://doi.org/10.1080/03098269885723

Myszkowski, N., Storme, M., Zenasni, F., & Lubart, T. (2014). Is visual aesthetic sensitivity independent from intelligence, personality and creativity?. *Personality and Individual Differences*, *59*, 16-20. https://doi.org/10.1016/j.paid.2013.10.021

National Research Council. (2001). Early childhood development and learning: New knowledge for policy. https://doi.org/10.17226/10067.

Nicol, E. A. (1969). *Measurement of Art Appreciation*. University of Hawai'i at Manoa.

Olender, J. (2015). Art and cultural institutions as social extensions of personal self-identity. *AVANT. Pismo Awangardy Filozoficzno-Naukowej*, (2-3), 57-71.

Östlund, U., Kidd, L., Wengström, Y., & Rowa-Dewar, N. (2011). Combining qualitative and quantitative research within mixed method research designs: a methodological review. *International journal of nursing studies*, *48*(3), 369-383.Parsons, M. (1998). Child development in art. https://doi.org/10.1016/j.ijnurstu.2010.10.005

Pugach, C., Leder, H., & Graham, D. J. (2017). How stable are human aesthetic preferences across the lifespan?. *Frontiers in human neuroscience*, *11*, 289. https://doi.org/10.3389/fnhum.2017.00289

Rathwell, K. J., & Armitage, D. (2016). Art and artistic processes bridge knowledge systems about social-ecological change: An empirical examination with Inuit artists from Nunavut, Canada. *Ecology and Society*, *21*(2). https://www.jstor.org/stable/26270376

Schabmann, A., Gerger, G., Schmidt, B. M., Wögerer, E., Osipov, I., & Leder, H. (2016). Where does it come from? Developmental aspects of art appreciation. *International Journal of Behavioral Development*, *40*(4), 313-323. https://doi.org/10.1177/0165025415573642

Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2000). *Research methods in psychology*. McGraw-Hill.

Sheoran, S., & Sheela Sangwan, S. C. (2018). Assessing Human Ecological Factors Affecting Visual Spatial Intelligence of Young Adolescents. *Int. J. Curr. Microbiol. App. Sci*, *7*(12), 1036-1040. https://doi.org/10.20546/ijcmas.2018.712.129

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, *2*, 53. doi: 10.5116/ijme.4dfb.8dfd. PMID: 28029643; PMCID: PMC4205511.

Terreni, L. (2010). A history of visual art education in early childhood in New Zealand: Looking backwards to go forwards. *International Art in Early Childhood Research Journal*, *2*(1), 1-11.

Urquhart, C., Lam, L. M. C., Cheuk, B., & Dervin, B. (2020). Sense-Making/Sensemaking. In *Sense-Making/Sensemaking* (Oxford Bibliographies in Communication). Oxford University Press. https://doi.org/10.1093/OBO/9780199756841-0112

van Dorsten, T., & van Klaveren , L.-M. (2023). Cultuuronderwijs inzichtelijk: ontwikkeling en evaluatie van TRACE. *Cultuur+Educatie*, *21*(62), 80-98.

Vuyk, K. (2010). The arts as an instrument? Notes on the controversy surrounding the value of art. *International journal of cultural policy*, *16*(2), 173-183. https://doi.org/10.1080/10286630903029641

Wallendorf, M., & Arnould, E. J. (1988). "my favorite things": a cross-cultural inquiry into object attachment, possessiveness, and social linkage. *Journal of Consumer Research*, *14*(4), 531–547. https://doi.org/10.1086/209134

Appendix A

Coding Scheme with some Examples of the Main Codes

Main categories	Main codes	Examples
Appreciation	Expressiveness	P42: "She fits very well with me because she is very colorful, and I'm always very colorful." P53: "I brought my object because with LEGO, I believe you can do anything. You can create your own world. And you can make whatever you want. And you can be creative... the only limit you have is your creativity."
	Emotional responses	P07: "Because it helps me when I didn't feel so good." P45: "Um, because I'm really happy with it and because this is my first third place in cyclocross."
	Personal connection	P03: "I think it's very personal, because my grandma made this for me." P33: "Yes, because we cut the hair off and then we braided that in here."
Linking	Liking visionary aspects	P03: "I really like the colors." P17: "Yeah, I find the card very beautifully made with some watercolor or something, I

		think, the top and the bottom, especially very beautifully detailed, so I find that very beautiful."
	Liking to use it	P23: "Because I really like playing the flute." P29: "Uhm because I really like racing with it in my room."
	Aesthetic aspects	P21: "It is a really pretty photo, everybody has an unique pose, so it is really something special." P53: "I find that beautiful."