

### **Abstract**

With the aim of exploring how children's pictures are made relevant and given meaning in research, this article analyses how children's pictures are used, discussed, and studied across different academic disciplines. Altogether, 423 articles published between 2010 and 2023 were thematically analysed. Four themes were identified that run through the research: Health and wellbeing, Competence and the mind, Education, and Agency and opinions. Each have strong connections to academic disciplines but are not simply defined by them. They are connected to specific perspectives on children's pictures, as well as specific notions of children. The study shows that very few studies focus on children's pictures per se, or analyse them solely for artistic reasons. Instead, children's pictures are often included in research with the purpose of making claims that extend beyond the pictures themselves, and beyond picture-making processes.

**Keywords:** research, methodology, children, pictures

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### **Resumo**

Com o objetivo de explorar a forma como as imagens de crianças se tornam relevantes e ganham significado na investigação, este artigo analisa a forma como as imagens de crianças são utilizadas, discutidas e estudadas em diferentes disciplinas acadêmicas. No total, foram analisados tematicamente 423 artigos publicados entre 2010 e 2023. Foram identificados quatro temas que atravessam a investigação: Saúde e bem-estar, Competência e a mente, Educação, e Agência e

opiniões. Cada um deles tem fortes ligações às disciplinas acadêmicas, mas não são simplesmente definidos por elas. Estão ligadas a perspectivas específicas sobre as imagens das crianças, bem como a noções específicas de criança. O estudo mostra que muito poucos estudos se centram nas imagens de crianças *per se*, ou as analisam apenas por razões artísticas. Em vez disso, as imagens de crianças são frequentemente incluídas na investigação com o objetivo de fazer afirmações que vão para além das próprias imagens e dos processos de criação de imagens.

**Palavras-chave** investigação, metodologia, crianças, imagens

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### **Introduction**

To understand children's role and place in society, research must, from time to time, turn a critical eye towards itself, asking what it is that we as a research community do. It is extremely important to gain knowledge about how we position children and make them part of research. The aim of this study is to explore how children's pictures are made relevant and given meaning in research across academic disciplines. What is it that the collective research community does with children's pictures, and how does it simultaneously position children?

The background for the study is a recognition that picture-making is an important practice for children around the globe, and that adults are closely involved in this making, as well as in taking care of and interpreting the pictures. What adults do with children's pictures and how they approach them are not neutral acts, however. Rather, they are ideological. Wilson (1997) states: "The situations in which adults' study and interpret works of children's art always reflect an ideology – a particular set of values, biases, and interests. (p. 167)" When applied to the research community, populated by adults, this quote highlights the importance of seeing and understanding what ideologies, values, biases, and interests are implicit when children's pictures are used, discussed, or studied in research.

Rose, Jolley, and Burkitt (2006) argue that research concerning children's drawings should more thoroughly consider the contexts in which drawing occurs and they consider it crucial to investigate the attitudes and practices of teachers, parents, and children as they shape children's drawing experiences and the drawings they produce. I argue that it is important to achieve an even broader understanding of the social meaning of children's pictures and picture-making practices. It is thus essential to dig deeper into academic research, as this is one particular and important context in which children's pictures are made, used, and interpreted (Mitchell et al., 2011).

This study is positioned within the field of childhood studies/child studies. It is written in a large research project on children's cultural heritage (Vetenskapsrådet, dnr. 2020-03095), in which we cooperate with Svenskt barnbildarkiv (Eng: Swedish Archive of Children's Art) where more than 700 000

pictures made by children are conserved. Researchers from many different fields and disciplines come to this archive to work. Using different perspectives, theories, and methods, they analyse and discuss children's pictures for many different reasons. This practice reflects a larger trend in which children's pictures, particularly drawings, are shown to be of interest to researchers from within various disciplines and perspectives (Burkitt, 2022).

Historically children's drawings were first used in research at the turn of the 20th century. The purpose was to try to assess children's intelligence and developmental stages through them (Cox, 1993). More recently, they have been used for therapeutic purposes (Rubin, 2005), as well as tools for psychologists in their attempts to understand the child's mind and how drawing skills develop (Jolley, 2010; Milbrath & Trautner, 2008). Psychological approaches have been the dominant framework, even within educational contexts, an approach that is now heavily disputed from post-developmental perspectives (Sakr & Osgood, 2019; Trafi-Prats & Schulte, 2022).

The fact that children's pictures and picture-making practices are examined from within numerous fields raises questions about why, when, and how children's pictures are used in research, and what it means that they are used in these ways. I have found no study that investigates this; however, there are some reviews of how previous research uses visual methods with children (e.g. Driessnack & Furukawa, 2012; Xie et al., 2022). Nevertheless, these remain within their own fields and cannot say anything about approaches across different academic contexts. This study therefore fills a gap by addressing how children are made part of and understood within the wider research community dealing with children's pictures. Rather than being a compilation of studies, it is a qualitative thematic analysis of how children's pictures are approached, using published academic articles as the study material. I ask: How and for what purposes are children's pictures included in research?

### **Methodological considerations**

In order to understand how children's pictures are made relevant in research across disciplines, a qualitative thematic analysis was conducted on an extensive body of research. The final collection of included studies consists of 423 articles.

To gather the material and gain a first overview of previous research, methodological inspiration was taken from the scoping review method. This method was developed to map out and examine previous research to provide literature overviews of broad topics where many different study designs might have been used (Levac et al., 2010). In line with the scoping review literature, I worked through the following steps: 1) Identify the research question, 2) Identify relevant studies, 3) Study selection, 4) Chart the data, 5) Collate, summarise, and report the results. This was done creatively and reflexively through a back-and-forth movement, repeating steps when necessary (Arksey & O'Malley, 2005).

Seeking to identify as many relevant studies as possible, I made manual and digital searches of various sources. Initially no restrictions were applied concerning publication date, genre, etc. All titles that appeared to include discussions on children's pictures were collected. The manual searches consisted of scrolling through reference lists, grey literature, and relevant researchers' personal websites. Digital searches were conducted through the databases Web of Science, Academic Search Complete, ERIC, NB-ECEC, PsycInfo, and Google Scholar. Search terms used in different combinations were the English words: "child\*" + "picture\*", "draw\*", "drawing", "image", "child art", "photo\*", "craft", "creativity", and the search strings "children were asked to draw" and "children were asked to paint". Numerous hits were deemed irrelevant because they refer to studies about, for example, children's picture books, or use the words "picture", "draw", and "image" metaphorically without having any connection to actual pictures or picture-making practices. An example is the article "Child and adolescent obesity: Part of a bigger picture" (Lobstein et al., 2015). After these hits were removed, the digital collection was still too large and included many duplicate and irrelevant titles. I decided to concentrate on recent studies published as articles. Following this logic, I weeded out some titles while simultaneously adding others located through targeted searches for recently published, peer-reviewed academic articles with abstracts.

This method does not guarantee that I have found all studies dealing with children's pictures. More articles could probably have been found if I had added additional search terms or searched in more databases and reference lists. Thus, the final collection used here as the empirical material, consisting of 423 articles published between 2010 and 2023, should be considered as a minimum of the total number of existing relevant studies. The studies found represent a broad range of research that deals with children's pictures in different methodological and theoretical ways. The majority are published in English, in peer-reviewed journals.

### **Criteria for the final collection**

- Study or review published as article with English abstract.
- The article includes terms like "child\*" + "picture\*", "draw\*", "drawing", "image", "child art", "photo\*", "craft", "creativity", "children were asked to draw", or "children were asked to paint".
- Article deals with child-produced pictures in one way or another.
- Children are defined as age spans under 18, or by defining terms like children, teenagers, schoolchildren, or pupils. Other age groups may simultaneously be present.
- Published during the period 2010–2023.

The database searches generated hitlists that included three types of important information: 1) name of the publishing journal, often indicating its

belonging to a certain discipline or research field, 2) title of the article, indicating the thematic direction of the study, and 3) abstract, often explicitly or implicitly stating how children's pictures are made relevant in the study. This information functioned as a basis for thematic sorting. Guidance on how to approach similarities and dissimilarities was taken from literature on thematisation and qualitative categorisation work (Ryan & Bernard, 2003; Bergman & Coxon, 2005).

In the first rough sorting, titles with attached abstracts were pasted into a Word file in clusters based on identified connections and similarities relating to frequently used theories, methods, or keywords. Titles were moved between clusters and repeatedly re-sorted. Slowly, this sorting and re-sorting resulted in four major themes. It was not a linear process, with new titles frequently being added; thus, the themes were revisited and sometimes adjusted. Adding titles functioned as a test of how well the themes worked. As more and more articles continued to align neatly with one or more of the themes and none fell outside them, I conclude that, at an overarching level, the four themes correctly cover how research has dealt with children's pictures during the last 13 years.

The four major themes are: 1) Health and wellbeing, 2) Competence and the mind, 3) Education, and 4) Agency and opinions. Some studies align very straightforwardly with one of these themes; for example, with Health and wellbeing when simultaneously focusing on children's health, being published in a medical journal, and making medical claims. In other cases, studies take on a multidisciplinary approach and combine theories and methods from different traditions in ways that align them with more than one theme. This can be exemplified by the journal *Educational Psychology*, which reveals through its title that an article published there may simultaneously touch upon psychological research, often focusing on competence and/or the mind, and education. Two themes are then relevant and it is difficult to assign such a study to one theme only. Obviously, the themes intersect and the thematisation is not exclusive. Thus, "themes" might be a misleading term for what I have observed through the material. For practical reasons, however, I will stick to the term, while recognising that "loose sprawling topics", "discourses", or "strands" could be equally suitable terms.

I scrutinised all titles within each theme, working mainly with the abstracts but also downloading a majority of full articles and reading them to secure my understanding of the studies. I focused especially on aim, method, and theoretical approach in order to understand how each study deals with children's pictures. In this work, I recognised the distinctiveness of the themes, as well as subthemes within them.

The way in which the themes intersect and studies sometime align with more than one theme makes it difficult to count how many articles fall into each theme. Also, working within a qualitative tradition, I am hesitant to make counts at all. Nevertheless, to be transparent, I do declare the numbers in each theme at the final sorting. These numbers, which should be read as somewhat provisional, give an indication of where children's pictures are most often made relevant: Health and

wellbeing (138), Competence and the mind (97), Education (68), Agency and opinions (120). In the analysis below, the four themes are further discussed and exemplified.

### **Analysis: Children's pictures in research**

The collected studies were published by researchers from, and concerning, a vast range of countries and communities, mainly but not exclusively in the global north. The pictures they deal with usually refer to child-produced drawings created manually using analogue tools such as pens, pencils, crayons, and sometimes brush-applied colours. However, other picture-making practices are also represented, such as photographs, collages, and digital pictures. Children's pictures are made relevant in three different ways: as finished products, as part of a picture-making process, and as a combination of both. Within the different themes, these three approaches appear to varying degrees.

Pictures are primarily used as a means to try to understand other things than children's pictures in themselves. This means that few studies focus solely on pictures. Some studies, for example reviews or theory and method developments, discuss children's pictures or picture-making processes theoretically, meaning that no "real" pictures or "real" children are included. It is therefore not possible to declare which children (age, country, and so forth) are being discussed in studies within the different themes. However, when children are referred to as participants in studies, they are seldom under the age of three. This might be because researchers consider the youngest children to be not yet competent in drawing. One exception is a visual ethnographic study that includes children as young as twelve months making pictures together with their parents (Lämsä et al., 2017).

### **Health and wellbeing**

The health and wellbeing theme consists of studies within a broad range of medical and caring fields. Children's pictures are included here in a few different ways. The first can be exemplified by a medical study on the long-term motor-function consequences of prenatal exposure to insecticides. This is a quantitative study in which 263 children aged eleven were asked to draw Archimedes spirals. These spirals were later rated and used to determine whether the children in a group known to have been exposed to insecticides as foetuses display tremor, which is proof of a neurological effect (Rauh et al., 2015). Here, the children's drawings are seen as physical performances that provide evidence of a medical condition.

Another, very common, way that children's pictures are included in studies concerning health and wellbeing is when groups of children with a particular medical diagnosis or disability are asked to make pictures about their condition. This includes, for example, children who are hospitalised or have been diagnosed with cancer, diabetes, epilepsy, or heart disease. Often the chosen group of children

was asked to draw pictures that were later assessed in order for the researchers to make better diagnoses and/or better understand the children's experiences of their health issues. In one example of such a study, children with migraine were told to draw the visual aura they experienced when having a migraine seizure (Yilmaz et al., 2019). As migraine aura is a visual experience that nobody else can see, encouraging children to visualise it on paper seems a plausible method for communicating their experience. In most cases, however, the connection between the disease and visuality is not as explicit, but the same method is used. Children with paediatric restless legs syndrome, for example, were asked to draw their symptoms: "Do you think you could draw me a picture of how it feels when you get that feeling in your legs on this piece of paper?" When they had finished their drawing, the children were asked to "Tell me about your picture" (Picchiatti et al., 2011: 1366). The drawings and children's explanations were then analysed for specific content related to diagnostic criteria. As in the restless legs study, a drawing task is usually combined with a conversation or interview about the medical condition, which is the main focus of the study.

Many health and wellbeing studies explicitly use drawing as a way to facilitate communication, to make it easier for children to talk about their experiences. Some say that drawing activities were used as a stimulus for conversation (e.g. Mohangi et al., 2011) or as "icebreakers" to start an interview, and a way to help the child express ideas or feelings that might be difficult to verbalise (Zigler et al., 2020). Hence, drawing is seen as an aid for children to become better interviewees. It is said that letting children draw "while talking increased the amount of neutral information that children verbally reported and helped to overcome limitations in language skills" (Ware et al., 2020: abstract). Woolford et al. (2015) even argue that, in mental health assessments, children who both drew and talked about their problems provided twice as much information as children who only talked.

Many studies within this theme have a solid connection to the medical field, and are published in journals such as *Neurological Sciences*, *Journal of Pediatric Oncology Nursing*, *Journal of Child Health Care*, *Comprehensive Child and Adolescent Nursing*, and *Journal of Pediatric Health Care*. There are also studies with a primary interest in children's wellbeing in wider terms; for example, children's understanding and awareness of mental health issues and studies about psychosocial needs, and the experiences and stigmatisation of children with physical, neurological, or psychological diagnoses. There is also a psychological strand, with publications in journals such as *Emotional & Behavioural Difficulties*, *Clinical Child Psychology and Psychiatry*, *Frontiers in Psychology*, *International Journal of Social Psychiatry*, and *Arts in Psychotherapy*. These are studies within art therapy (Altay et al., 2017; Clapp et al., 2019) and where vulnerable children's drawings are analysed psychologically (do Vale Pinheiro et al., 2015). Other examples include studies focusing on groups of children with experiences of different traumas and crises; for example, sexual abuse, migration, war, parents' illness, death of a sibling, or home confinement due to COVID-19. Again, the

common method is for children to be asked to draw as a conversation starter, with the purpose of understanding them and providing better help.

What ties together these studies within the Health and wellbeing theme is that, in different ways, children are positioned as patients, or more generally as vulnerable groups exposed to health-related problems such as illness or having experienced crisis. The overarching aims are to make diagnoses, evaluate children's wellbeing, develop methods for best practice, and improve treatments to make children feel better. The medical, or health-related, issues are the focus, while pictures are usually included on the assumption that drawing is an especially useful tool when trying to gain information and access children's views on their health. The frequently used method of asking children to draw and talk take it for granted that children can draw, and that it is possible to glean facts from their drawings, or – more prominently – from the talk that the drawings spark. This assigns children competences in picture-making and as informants. The fact that these pictures are seldom analysed deeply or used without complementing interviews, however, reveals that words are valued over visual communication.

### **Competence and the mind**

Within the Competence and the mind theme, there is considerable use of children's pictures as finished products in themselves. Generally, large quantities of drawings have been made on request and collected within experimental settings. In the largest study found, drawings from 7752 pairs of twins were analysed (Arden et al., 2014). Children are commonly asked to draw either a predetermined figure, such as copying a geometrical shape (Portex et al., 2017) or a freehand drawing, frequently of people, such as themselves (Burkitt & Watling, 2016), their family (Howard et al., 2017), or a human figure (Cannoni et al., 2021). These drawings are then scrutinised and evaluated from a psychological or cognitive perspective and usually processed statistically. The focus is generally on aspects central to psychology, such as development, cognition, perception, attachment, competence, and issues concerning the typical and the deviant. The competence and mind theme also includes studies designed to test and develop psychological and statistical methods and models (e.g. Strikas et al., 2022), and studies connected to a long tradition of assessing children's developmental capabilities; for example, using the draw-a-man test (e.g. Rakhmanov & Dane, 2019), which was developed by Goodenough in the 1920s (Cox, 1993). Studies are published in journals such as *Acta Paediatrica*, *Early Child Development and Care*, *Arts in Psychotherapy*, *Journal of Experimental Child Psychology*, and *Educational Psychology*.

Five types of orientation, or subthemes, can be described within this theme. One is "Children's drawing competences", in which drawing skills are assessed. This can be exemplified by a study of 90 children aged two to four years drawing in a smartphone app (Yadav & Chakraborty, 2017). In its focus on drawing competence, this study is typical of this theme, but it is simultaneously unusual because it focuses on digital, not manual, drawing competences, and because the researchers observed



how young children drew for a few minutes, rather than just looking at the finished products made by older children. Often, these studies let children solve a drawing task, such as drawing a football player (Baluch et al., 2017), with the aim of understanding children's different competences in relation to cultural settings or gender. Sometimes drawing competences are further related to language skills, typically focusing on comparing the drawing competences of children with presumed language disorders with those of typically developing children (e.g. Blom et al., 2021), or to scrutinise how language skills can aid drawing competence (Adline & Lefevre, 2021).

“Competences of certain groups of children” is the next subtheme, in which drawings made by special groups of children are collected and their skills assessed. Tested groups include children making stunningly realistic drawings (Drake & Winner, 2018), children with visual impairments (Vinter et al., 2018), and children with an autism diagnosis (Shi et al., 2021).

The subtheme of “Development” represents the many studies that focus on age and age-related knowledge of drawing and drawing skills. Here, different age groups are selected, and their drawings compared to each other, often in order to determine the point at which children typically become able to draw in one way or another. This can be exemplified by a study in which 120 children, in three age groups (five, seven, and nine years) were asked to draw, from their memory, with their preferred hand, some common objects (e.g. a walking dog, a facial profile, and a cup). The drawings were coded and analysed for their directionality, with the finding that there are differences in how different age groups draw the direction of these objects, and that by the age of nine children do it in relation to their own dominant hand, similar to adult drawers (Picard, 2011).

“Drawing competences in light of evolution and genetics” is a subtheme in which drawing is seen as an ancient behaviour, for which it is important to find the roots. Here, drawings made by child twins (Arden et al., 2014) are compared, as well as children's drawings in comparison to those made by adults and by apes (Saito et al., 2014; Martinet et al., 2021).

Lastly, there is a subtheme in which children's drawings are used as a method for measuring their inner perceptions and psychological features; for example, their perception of self (Goldner & Levi, 2014), attachment to significant others (e.g. Howard et al., 2017), and how creative they are (e.g. Mottweiler & Taylor, 2014).

Overall, studies within the Competence and mind theme aim to disclose what children are like, what they can do, and when. At its foundation, the pictures that children make are expected to show natural differences according to inner processes, age, and development. They are also thought of as something that can be correctly read, coded, counted, and compared. Children and their drawings are understood as something that can be assessed and measured to reveal facts, not only about the children who took part in those specific studies, but about children generally. Thus, there is a scientific truth-claiming foundation to this. In addition, children are positioned within a typical or deviant developmental movement that

adults have grown beyond. This means that children are positioned as a group separate and different from adults, apart from when children and their drawings are used in studies taking evolutionary or genetic approaches, when instead they stand as representatives of humanity, able to reveal something fundamental about human behaviour.

## **Education**

This next theme comprises studies focusing on children's picture-making as part of school and other educational settings. Different approaches to pedagogy and learning are their core focus of interest. It aligns with the pedagogical discipline, teacher training, and early childhood education. Publications appear in, for example, *International Journal of Art & Design Education*, *Journal of Curriculum Studies*, *Research in Arts and Education*, and *International Journal of Early Years Education*.

Both qualitative and quantitative methods are present here, as well as studies that include finished pictures and picture-making processes. However, the focus is seldom on the finished pictures themselves, but on different actions involved in children practising picture-making. Here, drawings are only one of many picture-making techniques that are included. Some experimental studies compare art teaching methods by scrutinising sets of children's drawings (e.g. Chad-Friedman et al., 2019), while in other studies children's pictures are addressed as something that is merely talked about, sometimes not yet even existing. The not-yet-existing picture is made relevant in studies that discuss children's pictures in relation to curricula (e.g. Hamilton et al., 2019), a school subject that is part of visual arts education (e.g. lafelice, 2016; Kauffman, 2016), or different pedagogical settings, theories, and methods (e.g. Rose & Jolley, 2016). Children's pictures are then considered in the abstract, as something that can be worked with theoretically in order to be taught in ideal ways and improved in real educational settings in the future. Thus, within this theme, teachers and their doings are almost as central as children.

Another part of the Education theme comprises empirical studies dealing with children's picture-making in school classrooms, preschool, and kindergarten. Quite a few of these are ethnographic studies, following what happens during art lessons, and focusing on teachers' pedagogical strategies (e.g. Hallam et al., 2011) and children's actions during art education (e.g. Hallam et al., 2014). Here, interviews and discussions with teachers and children in school often complement observations. In some studies, the researcher is involved in participatory action research in the classroom. For example, Wahyudi and Fathani (2018) arranged a finger-painting class to study children's learning and evaluate the instruction model, and Darling-McQuistan (2017) was simultaneously researcher and teacher using drawings with her class of 5–7-year-olds to enable them to jointly reflect upon the purpose of learning.

Another recurring approach within this theme focuses on, or seeks, the benefits of children making pictures. It is directed towards both the benefits of art and picture-making in itself (e.g. Burkitt & Lowry, 2015) and the benefits of including picture-making for other purposes, such as in a community art programme (Adejumo, 2010), and in other school subjects for children to learn and become engaged with something else. For example, one study explored how digital cameras can enhance preschool children's engagement with science investigations (Britsch, 2019), and another showed that drawing can aid children in learning basic life saving skills (Petris et al., 2017).

It is characteristic for the Education theme that children are positioned as pupils and apprentices who should explore the visual, express themselves, and learn how to refine their creativity. In comparison to Competence and the mind, this refinement does not inevitably come naturally through development. Rather, children should learn and benefit from picture-making, and that in turn means that adults with special competencies are closely involved. There is a focus on trying to find the best methods and teaching practices for children to achieve competence. This means that children's future picture-making skills are touched upon here. And, since visual art education is central, children are accordingly seen as artists in the making, not yet fully competent in picture-making.

### **Agency and opinions**

This final theme consists of studies from disparate disciplines and interdisciplinary fields within the humanities and social sciences. These publications are scattered across a wide range of journals. A few of the recurring ones are *Children & Society*, *International Journal of Qualitative Methods*, *Visual Communication*, and *Studies in Art Education*.

Within the Agency and opinion's theme, children's pictures are examined using a wide variety of methods, ranging from large quantitative studies to qualitative microstudies, and with numerous different aims. The common denominator is that children and their pictures are studied mainly for their own sake and/or that children's agency and/or opinions are central. The cultural and social aspects of life are important foundations for how children's pictures and picture-making are regarded here. Four broad strands of studies were identified within this theme. Firstly, there are studies analysing pictures that children have created, what they are, and what knowledge they mediate. Examples are archaeological studies of cave art (e.g. Lima et al., 2019) and analyses of children's art treated as historical documents (e.g. Kay, 2021), all valuing children's aesthetic and historical contributions to the understanding of our mutual past. Children's pictures are also analysed from an art historical perspective and at a theoretical level, as when discussing what children's drawings or children's art are, and how they can be regarded (e.g. Zuccoli, 2019; Park, 2019).

Secondly, there are studies focusing on children's multimodal activities related to picture-making in everyday contexts. These are usually in-depth ethnographic studies with a few children, focusing on meaning-making and drawing as play (Kukkonen & Chang, 2018) and social interaction. One example is Coates and Coates' (2021) study of two children who sit together talking and drawing. Another is Sakr's (2018) study of how children collaborate on drawing tasks with pen and paper and iPad, respectively. Also, there are studies focusing on daily occasions of drawing (Cameron et al., 2020) and close analyses of picture-making processes (Sakr et al., 2018).

Thirdly, there are studies that make use of drawings methodologically in order to understand children's experiences and what they think about certain issues. For example, Eskelinen (2012) asked children to photograph what they usually do in the afternoon, and Amrutha et al. (2021) analysed an exhibition of children's pictures about COVID-19 to gain an understanding of their perspectives on the pandemic. Most commonly, groups of children are asked by the researcher to draw something in particular. By giving children a set topic, the purpose is to gather their views and opinions on that topic in visual form. The topics given range from requests to draw a scientist (Christidou et al., 2023), which is quite common, to drawing your favourite gift (Kruuse et al., 2020), and drawing the future and the past (Rudolph & Wright, 2015). Studies of this kind can be large and quantitative but, due to their cultural-theory framing, rather than developmental theory, they seldom make general truth claims, in contrast to studies on similar tasks found within the Competence and mind theme. Here studies explore children's worldviews due to a fundamental interest in what children think. This means that children are treated as agents important to be studied in their own right. Yet, some studies also aim to improve something for children; for example, when children's opinions are collected through drawings to inform the design of toys (Mullick, 2013).

A fourth focus on children's views and opinions expressed through pictures is seen in studies discussing, problematising, and advancing research methods. Here, visibility is a way to bring children into research, to get to know more about them and their thoughts. Discussions involve, for example, the use of picture elicitation methods in which children produce visual material that is later used as prompts for interviews. These are drawings but also creative explorations of child-made scrapbooks (Cremin et al., 2011), text-and-picture diaries made jointly by children and parents (Lämsä et al., 2017), collaborative drawing between child and researcher (Knight et al., 2015), and children's photography in longitudinal studies (Luttrell, 2010).

Studies within this theme sometimes pose complex questions, some of which are theoretically challenging. Often, questions of research ethics, inclusion, power relations, and children's role and place in society are considered. Children are seen as important participants in this research, they are frequently positioned as active participants, or co-researchers, and the research aims to elicit children's perspectives (Earl, 2018), children's voices (Prosser, 2011), or to problematise an

“authentic child voice” (Nyberg, 2019: 482). This search for children’s voices is different from the search for children’s points of view that is present in the Health and wellbeing theme, where children’s utterances are generally taken at face value and the aim is to improve a problematic health situation. Here, there is often a critical take on the issue studied and on the visual methods. Also, there is a broad interest in children’s knowledge and participation. In addition, children’s pictures are frequently highlighted as being art, and thus attributed greater value.

## Conclusion

The point of departure for this study is the importance of exploring what research does at a broad collective level. This is especially important when the subjects of study are children, who are usually excluded from research designs. It is adult researchers who think children and their pictures can and should be investigated or used in research, not necessarily children themselves. As academic research is a context in which children’s pictures are used, made on request, and interpreted in more or less ideological ways, it is crucial to explore how this is done.

Asking what it is that the collective research community does with children’s pictures, and how it simultaneously positions children, this study concludes that out of the 423 studies found very few focus on children’s pictures per se, or analyse them solely for artistic reasons. Evidently, they are not treated like adults’ pictures, which are generally made by adult artists, and frequently scrutinised within the disciplines and fields of art history, visual studies, and visual culture. Instead, pictures made by children are usually included in research with the purpose of making claims that extend beyond the pictures themselves, and beyond picture-making processes.

This exploration of how children’s pictures are made relevant in research has revealed four major themes. In summary, these are the *Health and wellbeing* theme, consisting of health-related studies aiming to make diagnoses and understand sick and vulnerable child patients in order to be able to help them better. The theme of *Competence and the mind* is dominated by psychological studies, where large collections of pictures are assessed to reveal aspects of children’s drawing competences, as well as other issues connected to their development and cognition. These mainly seek to disclose general facts about children. The *Education* theme is closely connected to school pedagogy and seeks to find best teaching practices and to refine methods for learning. Children are positioned as pupils and apprentices who should explore the visual, express themselves, and learn to refine their creativity. In comparison to *Competence and the mind*, this refinement does not inevitably come naturally through development, but through actions performed by competent teachers. The theme *Agency and Opinions* comprises studies conducted in a plethora of fields and disciplines within the humanities and social sciences. Often, they problematise visual methods and position children as agents with their own opinions and knowledge.

The four themes have strong connections to academic disciplines but are not simply defined by them. They are much more complex. Not all studies are neatly disciplinary, and it is obvious that theories and methods can be shared between disciplines and fields. Thus, the themes intersect. Simultaneously, there are tensions between them because they build on different assumptions about children and pictures, and about research more generally. This means that, when communicating about children's pictures, one should not take it for granted that there is a shared consensus on what children's pictures are, what they might mean, or how they can be used.

I have shown that children's pictures are regarded in a plethora of ways: as facts, as prompts to improve interviews, as sources of information about aspects of children's inner life worlds and development, as well as something to learn and improve, to be used as a pedagogical tool, and as being communication, culture, and a social activity. The fact that children's pictures are used and given meaning in these multiple ways means that what we as a collective research community are doing to children is saying that their pictures can be used for almost anything. It also shows that researchers have high expectations of what children's pictures can achieve.

Another important insight is that "child" almost always refers to children over three years of age and that younger children are seldom of interest within research dealing with children's pictures and picture-making. Yet there are large differences in how children are positioned. Through this collective research, children are simultaneously positioned as vulnerable yet capable and worthy of being listened to, as psychological beings who can be evaluated from different angles through a lens of the general and normal, as pupils and apprentices in need of education and teaching, and as active participating agents with opinions and knowledge important enough to be studied in their own right. The finding that these diverse positions emerge in relation to children's pictures, which is a topic that one might think of as apolitical and free of friction, further encourages questions about how such societal positioning of children might also come to the fore through research on other child-related topics.

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