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#### **ORIGINAL PAPER**

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# EXPRESSING MOVEMENT IN DRAWINGS OF CHILDREN AT PRESCHOOL AND EARLY SCHOOL AGE

RUCH W TWÓRCZOŚCI RYSUNKOWEJ DZIECI W WIEKU PRZEDSZKOLNYM I WCZESNOSZKOLNYM

## **Keywords:**

child's drawings, children's artistic creativity, movement expressed in drawings, preschool children, preschool education, children of early school education, early school Summary: The article presents theoretical considerations and empirical analyses - based on research conducted among 5-6-year-old preschool children and pupils of early school education (Grades 1-3 of elementary school) - dealing with the issue of the difficult task of illustrating movement in drawings by children. The analysis of 1,471 drawings proved that the children examined by the author generally created pictures which lack in dynamics (51.3%). However, they occasionally undertake to express motion, their attempts being more or less successful. They most frequently do this through drawing bent limbs, different placements of the body, sometimes by application of different sizes of silhouettes or may suggest movement by the use of an arrow, stroke or a streak meant to stress the dynamic character of the situation. Among the less frequently used means, there are representation of a figure in profile, from the side and by bending the trunk of the human body. The research proved also that the sex is a factor which varies the skill of expressing movement in drawings - girls, generally, coping with the task with more expertise than boys. The comparison between the skill of illustrating motion typical of contemporary children and that reported on by researchers in the past points to the fact that today's children more often undertake to illustrate motion in their pictures than their counterparts examined, for instance, by Stefan Szuman or Bolesław Hornowski about 90 and 50 years ago, respectively. On the whole, technical difficulties do not pose a serious problem for a child attempting self-expression through drawing – he or she will find a way to somehow illustrate movement.

#### Słowa kluczowe:

rysunek dziecka, twórczość plastyczna dzieci, ruch w rysunkach dzieci, dziecko w wieku przedszkolnym, edukacja przedszkolna, dziecko w wieku wczesnoszkolnym, kształcenie wczesnoszkolne

Streszczenie: W artykule podjęto rozważania teoretyczne, ale także analizy empiryczne – na podstawie badań przeprowadzonych wśród dzieci 5-6-letnich i uczniów edukacji wczesnoszkolnej – nad zagadnieniem trudnej sztuki obrazowania ruchu w rysunku. Analiza 1471 dziecięcych rysunków dowiodła, że badane dzieci na ogół tworzą rysunki, które charakteryzuje brak dynamiki (51,3%), czasem jednak podejmują próby zobrazowania ruchu – mniej lub bardziej udane. Najczęściej dzieci czynia to poprzez zgięcie kończyny, inne ułożenie ciała, czasem stosują zróżnicowanie wielkości sylwetek i sugerują ruch za pomocą strzałek, kresek lub smug podkreślających dynamizm sytuacji, rzadziej zaznaczają ujęcie profilowe i zgięcie korpusu ciała. Badania wykazały również, że płeć jest czynnikiem różnicującym umiejętność obrazowania ruchu w rysunku – dziewczynki na ogół radziły sobie z tym lepiej niż chłopcy. Porównanie umiejętności ujmowania ruchu w rysunku współczesnych dzieci z wynikami badań innych badaczy wskazuje na to, że dzieci badane przez autorkę częściej niż te badane przez Stefana Szumana czy Bolesława Hornowskiego podejmowały w rysunkach próby przedstawiania ruchu. Ogólnie rzecz biorąc, dla dziecka, które pragnie wypowiadać się poprzez rysunek, trudności techniczne nie stanowią poważnego problemu, znajduje ono bowiem sposoby, żeby zobrazować ruch.

Entering the symbolic world of a child's drawing allows capturing a moment along with its intensity as well as cementing the bond linking us with the child (Chermet-Carroy, 2004, p. 9).

## Introduction

Children's artistic creativity, including children's drawings, can be defined as a phenomenal developmental occurrence which plays a very significant role in the life of a small child and which, although passing with time, leaves its traces in the child for life, enriching the child, making them more sensitive, and causing the whole of childhood to be easier and more colourful. In preschool and early school education, artistic activities occupy – apart from playing games – an important place and take on the character of vital cognitive and communication-related tools.

These postmodern times, in which contemporary man has come to be living, are characterized by constant rush, superficiality, being lost and consumerism. One can repeat after Bernadeta Didkowska that nowadays, "we are particularly socialized towards consumption which is becoming the essence of society" (2015, p. 18). In search for effective ways of soothing this state of things, special significance can be attributed to creative actions that oppose consumerism, passivity, instant culture and an attitude of minimizing difficulties. An important area of such actions is artistic creativity, while encouragement to pursue and support it, as well as formation of an appropriate climate for its development, make it one of the leading tasks for teachers of early education.

Children's drawings never cease to raise interest and inspire researchers to open successive inquires in an attempt to explain their significance, since – as Urszula Szuścik rightly observes – "the phenomenon of children's creativity expressed in drawings becomes revealed paradoxically in simplicity of the image which is simultaneously an expression of complexity of the child's psychophysical structure" (2019, p. 7).

In studies on children's visual artistic creativity, the semiotic approach appears the most interesting, according to which a child's visual images are a kind of method used to express him or herself by means of a language that serves the child to communicate with the surrounding environment. It is easy to observe that individual children's visual ways of expressing themselves do differ in a similar manner as their styles of verbal expression do. Each child, like an

adult artist, looks for his or her own means of artistic expression, but often also copies certain schemata and conventions drawn on from various sources. Although describing children's creativity is a very interesting activity, it is not easy to characterize it due to the fact that this type of creativity always follows its own individual path. There are no two drawings that would be the same and even identical forms and "typical schema dividing the sheet of paper into the sky and the ground always have slightly differing features. This is because a single sign does not exist in separation but is always dependent on other drawing signs" (Karczmarzyk, 2014, p. 67).

What is the way in which children learn to create images-messages? How do they construct their artistic-visual language? How do they deal with technical difficulties which they experience while drawing?

The article undertakes to theoretically discuss and empirically analyse, based on studies conducted by the author, the question of the difficult art of presenting movement in drawings. The research problem was formulated in the following way: Does the child at preschool and early school age deal with presenting motives including movement? If so, in what manner, and what does the child do in order that his or her drawing should reflect dynamics of events and situations?

# The essence of an artistic drawing

While defining a drawing as a form of visual realization, it is impossible not to mention the existing rich literature on the subject and numerous studies conducted on this problem area. The scholarly debates going on for many years have contributed to working out a stance that many researchers are inclined to accept (including the present author), which treats artefacts of fine art produced by children as creative activities, calling them artistic creativity. One should also agree with the point of view presented by Kinga Łapot-Dzierwa who, in appreciating children's artistic creativity, is far from acknowledging it to be outstanding, since as she writes, it ought to be understood "as a process of a child's thinking, feeling, perceiving and a reaction to the environment in which the act of discovering new situations is happening" (2018a, p. 6). Thus, artistic creativity is, according to this researcher, "a process, in the result of which there follows a transformation of the existing reality into a new, original and sensible whole. This whole is an artefact of visual art, which displays features of novelty and unrepeatability" (2018b, pp. 161–162). A child's drawing

performs such criteria. "A child's drawing is a message, a free action expressing itself in a spontaneous language. The drawing speaks, tells and explains everything that the child is not able to express with words" (Chermet-Carroy, 2004, p. 7).

Drawing is defined as "a domain of visual art, in which the basic means of expression is a line" (Malicki & Zwolińska, 1999, p. 266) that forms as a trace of a tool such as, for example, a pencil, crayon, charcoal or marker. As regards this tool, but also because of the force of pressure applied by the person who is drawing, a number of types of strokes and lines – delicate, thin or solid, thick, even and uneven – are created. The drawing belongs to the earliest, the most popular and commonly applied forms by which children express themselves in a visual artistic way, "being driven by an internal imperative which forces the child to observe, express feelings, emotions and to draw great pleasure from this activity" (Didkowska, 2015, p. 32).

Drawing is the child's first language which, generally, precedes even verbal development. It is a message which is often most expressive, independent and sincere. A child's drawing and the activity of drawing itself are coherent elements that are mutually connected and complement each other; they are also particularly complex and "refer to both the sphere of expression and that of communication of the subject with himself/herself and with others" (Wallon, Cambier & Engelhart, 1993, p. 19).

In his or her pictures, the child endeavours to copy the image of natural objects, manifesting the tendency towards mimesis in the drawing (Krauze-Sikorska, 2006, p. 61), but is hampered in doing this by his or her imperfect skills and restricted developmental abilities. Therefore, the child willingly applies drawing schemata, making use of the pictures he or she finds from the surrounding environment, the media, literature or advertising.

The source of children's drawing is the world around them. This was so in the past and it is so today, too. Naturally, one cannot deny the thesis which S. Szuman put forward many years ago that images contained in the media are the new teacher of children's drawings (1990, p. 115), and as Didkowska emphasizes, "never has the impact of these external models [...] been so strong, though, never before have children found themselves in a situation of such massive exposure to media images" (2015, p. 9). Indeed, the expansion of visual depictions in the mass media and their rapid development has caused everybody, including children, to be able to access a large spectrum of images. It is worth remembering that "the child – in his or her message passed by means

of a drawing – uses signs drawn from the modern code. The way of treating a silhouette, using the 'in-seen' form and slightly other meaningfulness of children's drawings causes them to differ from those which adults know from their own childhoods" (Karczmarzyk, 2014, p. 220). Children's artistic artefacts are polysemous and they should be read as such (Karczmarzyk, 2014, p. 101).

Communication by means of the child's drawing "goes on with the help of a specific *alphabet*, that is visual signs composed into different configurations. This alphabet consists of lines, colourful blotches or texture which create defined compositions and are an individual, unrepeatable trace of a creative expression. It is thanks to it that signs of no meaning start living their own life, having been bestowed by the creator/child with his/her psychic energy" (Łapot-Dzierwa, 2018, p. 7). The dialogue-like nature so characteristic of verbal utterances is also typical of children's picture-based utterance (Löfstedt, 1997).

"The process of development of a child's artistic creativity is intertwined with the complex process of the child's development" (Szuścik, 2016, p. 64). The child undertaking to execute more and more difficult drawing tasks bases them on experiences in which he or she acted and perceived. The child "begins to discover symbols and speech, making use of forms that it has at its disposal, as well as those which it has to create itself" (Affolter, 1997, p. 338). Acquiring successive skills in the development of a child's drawing competence testifies not only to the child's successful development in the sphere of visual art, but also in the sphere of cognition. The child gradually learns to acquire means of constructing an artistic utterance – application of a stroke or colourful blotch, composition of the work, representation of movement or framing space.

# Development of child's drawing competence

Each child presents his or her own individual rhythm, tempo and dynamics of development. This is also true regarding visual art, although it is possible to distinguish a few phases in its development which occur in all children. We can find in the literature on the subject a good number of different divisions into phases/stages of development of artistic creativity. One of the first – appreciated by many researchers – was the classification proposed by D.G. Kerschensteiner in Germany in 1905. On the basis of a rich collection of drawings, he distinguished four phases of development of the drawing competence: the period of schematic drawing (children of 6–8 years of age); the period of the budding sense of shape and line (8–10-year-olds); the period in which the drawing

corresponds to the real appearance of the object (10–12-year-old children); and the naturalistic period (teenagers of 12–14 years) (cf. Hornowski, 1970, p. 37; Popek, 1978, p. 44). This division was regarded as classical and it was complemented in successive years. Nonetheless, the outstanding Polish psychologist, Stefan Szuman, perceived a significant shortage in it, which, according to him, was the overlooking of an unusually significant period in the child's life, that is, the period of scrawling - one in which schemata are formed. Consequently, he offered a slightly different principle behind the division. His was the stance that the child, while drawing, does not only imitate an external model, but also presents a picture of the internal one, the graphic expression of which is a drawing schema. Eventually, he made it the most interesting and central phenomenon in the development of drawings (Szuman, 1990, pp. 3–8). In his book published in 1927 (re-edited in 1990) under the title Sztuka dziecka. Psychologia twórczości rysunkowej dziecka [The child's art. Psychology of child's drawing creativity], he wrote "The child learns to draw with time, less or more perfectly, as regards naturalism (physio-artistically) thanks to the fact that through the schema he or she is capable of framing the infinite multitude of shapes of reality and capturing them in the form of a drawing. The child does not absorb the schema from the outside because he or she possesses human intelligence" (1990, p. 9). The researcher proposed the following three periods of a child's drawing creativity:

- 1. The period of scrawling, that is formation of a schema (1.6–3 years of age);
- 2. The period of schema called "ideo-visual art", in which the following phases are distinguished: (a) the phase of "head-legs" (3–4 years), (b) the phase of simplified schemata (5–7 years) and (c) the phase of enriched schemata (7–12 years);
- 3. The post-schematic period called "physio-visual art", including two phases: (a) realism of impressions (12-13 years) and (b) intellectual realism (13-15 years) (Szuman, 1990, p. 9).

In the literature on the subject, there exist also many other divisions of the drawing creativity of children, among others, those elaborated by C. Burt, V. Lowenfeld and W.L. Brittain, M. Debesse, or J.F. Boutonier. An interesting comparative selection of views of different authors can be found in the publication of Stanisław Popek under the title Analiza psychologiczna twórczości plastycznej dzieci i młodzieży [A psychological analysis of the artistic creativity of children and youth] (1978, pp. 44-52). The analysis of the above-mentioned

classifications proves that despite the existing differences regarding their terminology and slightly differently timed individual phases, all the researchers describe the development of drawing competence in a similar way – from the simplest forms (scrawls), through schemata (ideo-visual art), into more complex, realistic and artistic forms (physio-visual art).

The child, most often as early as within the first year of its life, reaches for a crayon or a pencil. "Usually the first strokes appear between the 9th or the 10th month and the 2nd year of life, depending on the circumstances and conditions in which the child is growing" (Wallon, Cambier & Engelhart, 1993, p. 42; Lowenfeld & Brittain, 1977, p. 56). The first period, most frequently not appreciated by adults, is the phase of scrawling, popularly called "scrabbling". This is the so-called "pre-figurative", no-subject phase. Certainly, this is a very important stage in the development of the child's artistic competence and cannot be treated exclusively in terms of training the technical aspect, which precedes the subsequent drawing, since as it is underlined by M. Parnowska-Kwiatkowska – the first researcher of the problem area in Poland – "scrabbling is one of the manifestations of a small child's activity, initiative, independence of action" (1960, p. 390).

With time, the drawings of small children take on features of scrawls that present something (Kielar-Turska, 2001, p. 126). There appear circular and oval shapes in the drawings, differentiated graphic lines and signs. Apart from this, there is a clearly visible growing need for applying colour. "Colour, as an element of the process of scrawling, selected on the basis of a random choice, plays the explorative role and even though there slowly emerges the emotional factor, the child prefers chromatic colours which are clear and simple" (Krause-Sikorska, 2006, p. 65). The child also begins to give names to its drawings, which means that he or she "has already captured the relation between him/ herself and the surrounding world" (Lowenfeld & Brittain, 1977, p. 59). Initially, the name which is given to a drawing once does not hold forever, but "changes every now and then, depending on whatever enters the child's head at the moment" (Szuman, 1990, p. 15). When the child discovers that the drawing can represent some object, it starts to play with giving names to everything it has created (Tisseron, 2006, p. 32). Naming drawings makes the child look for means of visual art which bring the picture closer to that of the image of the object (Szuman, 1990, p. 157). "It is not before the child enters the phase of naming scrawls that there appears in the child a desire to apply colour to emphasize meanings" (Lowenfeld & Brittain, 1977, p. 60).

Being encouraged by the effects of his or her creative accomplishments, the child embarks on experimenting with fine art, displaying newer and newer enthusiasm and acquiring greater expertise in this domain. "The circle makes the first organized shape which emerges from more or less uncontrolled scrawls" (Arnheim, 2004, p. 203). The skill of closing space within a circle offers to the child the possibility of drawing a human being. This is the first motive that is taken up by children throughout the world, irrespective of the place where they live (cf. Lowenfeld & Brittain, 1977, p. 72). According to Maria Ligeza, the human silhouette is one of the earliest representations in children's drawings and constitutes an indicator of the level of the child's intellectual development (2004, p. 143).

There appear "head-legs" and "head-trunks" in children's drawings to represent humans and animals. They typically consist of more or less shapely heads and "long-trained lines and basic forms, these being shapes which – from the state of hanging in space – pass on to landing and standing, as well as dazzle with sound self-awareness" (Fleck-Bangert, 2001, p. 44) and slowly enter the phase of simplified schemata. In drawings produced by four-year-old children, apart from humans and animals, it is possible to discern houses, concrete scenes and events. The child's drawing schema is an indirect stage between the image of an object and its notion, a peculiar "result of an a-perceptive selection of the child's mind" (Szuman, 1990, p. 26). The child, although still developing and perfecting the already created schema, does apply it eventually in a highly individualized way that is characteristic of the given person.

The child draws what he or she has the knowledge of (Szuman, 1990, p. 19) and feels (Fleck-Bangert, 2001, pp. 13–14; Lowenfeld & Brittain, 1977, p. 87), not in the way he or she sees things. The child builds an individual graphic vocabulary called ideograms, schema or pre-schema (Wallon, Cambier & Engelhart, 1993, p. 43). The child, looking for ways of drawing, works out his or her own elements of artistic expression, uses also the so-called affective transformations with the aim to mark his or her subjective approach towards the object being presented (Szuman, 1990, pp. 49–50).

As they grow, at around five years of age, children insert more and more logically represented details in their drawings. There may occur some complex action, movement, a purposeful selection of colours which are compliant with the reality. Drawings produced by girls differ from those made by boys. The latter, who get to know space in an active way (more often tending to represent the kinesthetic type), mark movement and the dynamics of events

in their drawings. Girls, on the other hand, more frequently make use of sensory experience, chiefly of the visual kind, and therefore place more details in their drawings (cf. Wallon, Cambier & Engelhart, 1993, pp. 71–72). "Boys more willingly draw mechanical vehicles, whereas girls represent human shapes, animals, trees, houses and flowers" (Jędrzejowska, 2014, p. 53). With time, adding graphic details gradually disappears, since children start to draw, keeping proportions and represented scenes become more and more dynamic, colours comply with reality, which testifies to a growing interest in representation of the naturalistic type (cf. Wallon, Cambier & Engelhart, 1993, p. 51). It follows from S. Popek's research that until the age of five, children's use of colours in drawings is accidental, yet with time, the child makes intentional choices in this respect (1999, p. 113). At the beginning, blending colours is a chance action, though later – at the age of about 9 years – children do this in a conscious way.

Attempts to represent space appear in some children's drawings towards the end of the preschool years. They are, on the other hand, present in works of early-school-age children. There is a succession of the following systems based on: stripes, topography and spheres. There is also a marked dependence on the cultural context (cf. Jędrzejowska, 2014, p. 57; Kielar-Turska, 2001, p. 104).

Between the fourth and the twelfth year of a child's life there develops and perfects itself the phase of a drawing schema, which is characterized by the following features:

- clarity presenting objects in the most characteristic and clear manner;
- anthropomorphism animals are likened to people;
- simultaneous perspective objects are presented from different points of view, from different perspectives (seen from their sides or their front);
- transparency, "X-ray images" simultaneous framing in the picture of what is seen from the outside and the inside;
- transformations of the proportions of expression whatever is important to the child, whatever is emotional, is larger, occupies more space;
- telling the aim of drawing is to narrate, tell a story, inform of the desire to be understood (Fleck-Bangert, 2001, p. 47).

Children's drawing performs a great number of functions, the most important of which are the following ones: developmental, communicative, expressive, projective, diagnostic, therapeutic and educational (cf. Jędrzejowska, 2014, p. 61). A drawing helps one to get to know the child. One needs only to pay more and closer attention to children's artefacts and to learn to read

the messages which they contain. Children create their drawings for different reasons, which often remain unclear to adults and even are not fully made conscious to the very children themselves who sometimes want to express themselves and find drawing or painting to be the easiest ways of doing it. The young creators are overfilled with emotions which they "pour out" onto a sheet of paper and also because this pleases them to leave real traces on the paper, or sometimes because a peer is doing this, or even simply because they are bored. "Drawingability", as Małgorzata Anna Kaczmarzyk rightly puts it, can become "a peculiar plane of understanding, which makes it possible to create multifarious meanings through drawing, between a child and adult readers" (2014, p. 57). Szuścik adds that it (the act of drawing) makes "a peculiar initiation of entering the social world and communicating with others by means of a spontaneous language of the picture – visual qualities" (2016, p. 64).

# Movement in children's drawings. The state of studies on the subject matter

The theme of children's artistic creativity found in the literature on the subject has been present in the research space for many years now. It is dealt with in the rich corpus of relevant literature and taken up in many studies that were and are carried out by pedagogues, educators, psychologists, art historians, artists and other researchers representing different domains, who perceive great research potential in this phenomenon. Among the many analysed aspects of children's drawing, there is also found the problem of expressing movement in artistic works.

Drawing motion poses a considerable amount of difficulty to children. Szuman aptly observes that it is "not possible to draw movement, there can only be captured one of its moments, one of the transient forms of a gesture, which compose motion" (1990, p. 46). Researchers of the problem of artistic creativity in drawings underline that the first children's schemata are still and stiff (Szuman, 1990, p. 43; Hornowski, 1970, p. 159). Popek calls them contour schemata (1978, p. 59) which lack in proportions and space. However, "movement is of such a vital importance to the child that displaying in pictures objects which are in motion brings a lot of joy to children" (Arnheim, 2004, p. 217). At first, the child attempts to illustrate motion through quick movements of the hand, from one side of the sheet to another, or by applying a series of rapid zigzags (Szuman, 1990, p. 17). With time the child begins to feel the need for setting figures in motion, especially when this is required

by the theme which the child has undertaken to draw. Still, this is a difficult task for children to accomplish, since – as Szuman notes – "they are fettered by their stereotypical stiff schema" (1990, p. 44). Usually, around the age of 6 years, there appear endeavours to frame movement in drawings, "a drawing becomes a spectacle" (Posłuszna-Owcarz, 2002, p. 267) in which dynamism is seen. Initially, the child suggests motion in this way that he or she draws limbs in suitable positions, beginning with the upper and then the lower ones, while the head and the trunk still remain motionless (Szuman, 1990, p. 45; Hornowski, 1970, p. 160). Besides, Szuman emphasizes the fact that in order to illustrate motion, one needs certain knowledge of the way the body is built and at the beginning, the child "does not pay attention in its schematic drawings to the existence of joints, like a knee, a hip or an elbow" (1990, p. 48). Around the ages of 6–7 years, there follows a bend of the body visible in children's drawings. The child enters the period referred to by Popek as the stage of plane schemata (1978, p. 61); he or she tries to create a generic scene in the drawings, applies lively, intensive colours, connects compositional elements in one whole, yet still is unable to handle proportions or three-dimensional space (Popek, 1988, pp. 105-106). The researcher also draws attention to the fact that the positioning of figures in drawings and the expression of motion are firmly interconnected with each other. Movement, apart from that, can be expressed through bending the limbs and is connected with profile-based positioning of figures, since it is this position that makes bending of the body possible (1978, p. 66).

The results of Szuman's studies showed that at the age of 6–8 years, 78% of drawings are devoid of representation of movement; 17% of children try to make hands "move" and 16% do so with representations of legs. As regards children of 9-10 years of age, 64% of works are "immobilised", 27.5% of children try to make hands move, whereas 24% work on legs in this respect, and it is also in this group where there appear a fairly modest number of drawings (4%) in which the trunk is put in motion (1990, p. 48). Bolesław Hornowski's studies indicate that "drawings of preschool children, showing human figures, are completely stiff and still," although the researcher observes that one can discern in them certain beginnings of expression of motion, for example, the hands placed horizontally against the body (Hornowski, 1970, pp. 163, 168). The results of his research prove that certain changes follow in the period of early school education - the human figure still remains immobilised, but there appear certain elements of movement. The author argues that "the most typical

position in mobilising schemata is the position of a step" (Hornowski, 1970, p. 163), as occurring in 11% of children's drawings. "It is not until children turn 9 years old that in their drawings beside the position of a step there appears a bend in joints – 20% of drawings, even though the very joints themselves are only weakly marked. The presence of the position of a step increases in up to 23% of drawings, while the stiff schema still remains dominant in 57% of them (Hornowski, 1970, p. 163).

## Method

In order to follow how preschool and early-school-age children, very often taking up artistic activity, deal with the representation of movement in their works, the author of this article devised and conducted her original research among 5-6-year-old preschool children and pupils of early school education living in the area of Opole Province.

Accordingly, the main aim of the research was to carry out an analysis of the artistic creativity among preschool children of 5–6 years of age and pupils of early school education (Grades 1-3 of primary school), with the focus on the skill of presenting movement in their drawings. The following specific goals were defined:

- 1. Evaluation of the skill of imaging movement in drawings by 5–6-yearold preschool children and pupils of early school education (aged 7–9).
- 2. Checking whether the child's sex is a factor in differentiating their skills of illustrating motion in drawings.
- 3. Making an attempt to compare the results of the author's own research as regards the skill of presenting movement in contemporary children's drawings with those obtained in earlier studies and available in the literature on the subject.

The consequence of the thus outlined goals was the formulation of research problems. Foremost among these was the question: In what way can the artistic creativity of 5-6-year-old children and pupils of early school education be characterized in the scope of their skill of presenting movement in drawings? Again, detailed problems were as follows:

- 1. What are the skills of imaging motion in drawings by children of 5–6 years of age and pupils of early school education?
- 2. Is the child's sex a factor in differentiating relevant children's skills of expressing movement in drawings?

3. Can any, and what kind of, differences be seen in the skills of contemporary children regarding representation of movement in drawings in comparison with children examined earlier by other researchers?

The authors of the drawings created and collected between April and June 2019 were children attending preschool institutions and Grades 1–3 of primary schools, mainly based in urban environments. The characteristics of the examined group is given in Table 1.

Table 1
The examined children – division according to their age and sex

Sex	Girls		Boys		Total	Total		
Age	N	%	N	%	N	%		
5–6 years	342	49.4	393	50.4	735	50.0		
7–9 years	350	50.6	386	49.6	736	50.0		
Total	692	47.0	779	53.0	1471	100		

Source: author's own elaboration.

There were 1,471 works collected in total which were subject to analysis. As it can be seen in Table 1, the sizes of the groups of children attending preschool and grades 1-3 whose drawings were analysed were almost equal to each other. There were only slightly more drawings produced by the boys (53%) than the girls (47%). The collection of drawings was elaborated on by means of the statistical method, which - despite its drawbacks - appeared optimal to the author to accomplish the research aims assumed in the study. Juxtaposing many drawings on the same topic, it was attempted to establish how children cope with investing the task with the dynamic character, which was suggested to the examined children prior to their carrying out the task by an appropriate introductory story and its plot. The drawings were gathered by teachers who knew the children, had prepared them suitably to execute the artistic work and supervised the process of children's drawing. In order to introduce the children into the subject, the teacher was asked to read out a short story devised by the author of the research (entitled "The First Spring Games" in the case of 5-6-year-olds and "The First Springtime PE Lesson in the School Fields" for the pupils of early school education), which was rich in descriptions of dynamic events meant to inspire and encourage the children to undertake the presentation of motion in their drawings. The examined children had A-4 sheets of drawing paper and coloured pencils (sundry colours) at their disposal.

In order to evaluate the children's drawings, three categories based on the literature on the subject were established. It was expected that they should apply with reference to the examined group.

- 1. Low level static works, lacking in any attempts at expressing movement, motionless figures shown frontally.
- 2. Medium level works which display (to a greater or lesser degree) attempts at showing motion but are found to be executed in a very awkward manner. There is an attempt made at showing a bent limb (a hand or a leg), or a different positioning of the body is applied in the drawing, sometimes marked with an arrow, stroke or shadow meant to reflect the character of motion; figures are drawn frontally.
- 3. High level works with clearly visible dynamism, possessing many elements drawn in such a way as to emphasize movement; figures are dynamic, sizes of the silhouettes vary, being often framed in profile limbs are bent, the trunk is bent, the body being positioned in such a way as to suggest movement; additional arrows, strokes or streaks are used to highlight dynamism of the situation.

## Results

Creating works in such as way that they should give the impression of being dynamic and show motion which the artist wants to display is a difficult task for any person to accomplish. To a child who still has not mastered the appropriate artistic skills to as high degree as that of adult artists, it seems particularly hard. Can contemporary children cope with this challenge? The results of the examination, which are presented below, are an attempt to answer this question.

The results of the evaluation of the drawings of all the examined children are illustrated by means of indicators given in Table 2.

Table 2 Levels of representing motion in drawings of children at preschool and early school ages, including children's sex

Sex	Girls		Boys		Total	Total		
Level	N	%	N	%	N	%		
Low	298	43.1	457	58.7	755	51.3		
Medium	369	53.3	317	40.7	686	46.6		
High	25	3.6	5	0.6	30	2.1		
Total	692	100	779	100	1 471	100		

Source: author's own elaboration.

The detailed analysis of the children's skills in illustrating motion in drawings proved (Table 2) that taking into account all the children, both at preschool and early school ages, more than half of them (51.3%) presented a low level of the skill being evaluated. Not many less of them (46.6%) can be qualified on the medium level, and only 2.1% can be acknowledged to represent motion on a high level. Considering their sex – drawings by the girls were evaluated to be of a higher quality in the examined respect than those produced by the boys. There were more drawings by the latter (58.7%) which qualified at the low level in comparison with the girls' works (43.1%), the level meaning a lack of any attempts at expressing movement in drawings. Similarly, the girls (53.3%) more often than the boys (40.7%) clearly undertook to express motion in their drawings and therefore there were more drawings by the former (3.6%) than those by the boys (0.6%) which were qualified as high level, which is characterized by visible imaging of movement.

The next table (Table 3) juxtaposes the numerical and percent indicators with reference to children's skill in the scope of imaging movement in drawings, including the age and sex of the examined.

Table 3
Levels of expressing movement in drawings of children at preschool and early school ages, including the children's age and sex

Age/	5–6-year-olds						7–9-year-olds					
sex	Girls		Boys		Total		Girls		Boys		Total	
Level	N	%	N	%	N	%	N	%	N	%	N	%
Low	213	62.3	297	75.6	510	69.4	85	24.3	160	41.5	245	33.3
Medium	120	35.1	95	24.2	215	29.2	249	71.1	222	57.5	471	64.0
High	9	2.6	1	0.2	10	1.4	16	4.6	4	1.0	20	2.7
Total	342	100	393	100	735	100	350	100	386	100	736	100

Source: author's own elaboration.

While analysing the results contained in Table 3, one can conclude that, naturally, along with advancing age, children's skills regarding presentation of movement in drawings become more and more developed. As regards the group of 5–6-year-old children, there is hardly any motion represented in their drawings, which consequently is reflected in their presenting a low level (69.4%). Among the works produced by pupils of 7–9 years of age, drawings classified as representing the medium level dominate (64%), which means ones displaying visible efforts to show motion. The drawings qualifying at the high level of illustrating movement made by both of the examined groups were but a few – 1.4% in the preschool group and 2.7% of the children in early school education. It was demonstrated that in each of the examined communities, the girls produced drawings on a slightly higher level of expressing movement than that did the boys, the greatest difference occurring in the case of children of 7–9 years of age, with 24.3% of the drawings by the girls being classified at the low level, compared with the 41.5% of low-level works made by boys.

On analysing all the gathered artistic works, both those collected among preschool children and pupils of early school education, it was found that there dominated basically two groups of drawings.

The first category – complying with the low-level characteristics – comprises drawings in which children present the world in an absolutely static manner, lacking in any attempt at showing dynamics of the situation which they depict. Thus, they do not display any movement. The figures are motionless, shown frontally. The general artistic level of these artefacts varies – mostly, they are of a rather low quality, testifying to poor artistic skills and hence, the lack of ability

to express movement in a picture. However, in this group of drawings there are also ones that are neat, elaborate and expressive, testifying to the children's involvement and their authentic artistic skills, although their authors – at this early stage – are still not capable of applying any means of artistic expression which would allow giving their creations a dynamic character, even if in a very modest and simple dimension.

The other major group of drawings can be acknowledged to be of the medium level, being the most typical of children at this age. It comprises works in which one can clearly discern that there is born in the child an awareness of and the need for investing their creation with a dynamic character when undertaking to realize such a theme. It is evident that the child is often confronted with a great deal of difficulty trying to carry out the task, yet there are clearly visible attempts to do so. Generally, the child's efforts are awkward, but with time they manage to accomplish their goal with a little more success, more neatly. There are a variety of ways which children devise to represent movement. Most frequently they begin with the limbs, first – the upper ones – raised, bent, drawn aside, and then the lower ones represented in a similar fashion. Another manner is raising the whole figure in the picture in such a way as to give the impression of jumping, sometimes marked further with the hair or clothes which rise and "float" in the air. Another time, a leg which is drawn touches a ball or motion is accentuated with an arrow, a streak, or a stroke which is meant to suggest movement of a hand, ball, etc. Occasionally, the whole body that is drawn suggests a rapid action, for example, a goalkeeper who - trying to defend the shot – makes a dive for the ball. Silhouettes are typically drawn frontally and there are sometimes weak attempts to show figures in the frontal dimension. This group of drawings is the largest and the most differentiated. Here, one comes across works which are rather poor as regards artistic quality - schematic, drawn with poor strokes, with no elaboration (which more often is typical of boys rather than girls). Yet among the creations qualified into this category, there are drawings of a higher artistic standard as well, ones showing the child's greater artistic skills and also stronger engagement. Representing movement, however, is generally very similar in each case. The child, having reached this stage of drawing, clearly realizes the need for expressing motion in the situation being the subject of the picture and endeavours to accomplish it in a more or less expert way.

The above-described two groups basically exhaust the categories which were possible to be established while evaluating the children's works. Obviously,

one more category could be distinguished that included the scanty number of drawings qualified at the high level. Evidently, their authors presented decidedly higher artistic skills than their peers, including those connected with the manners of representing movement in drawings. Age, as it was found, does not seem to be the most important factor in this respect, since works of this quality were found in the group of both pre-schoolers and pupils of Grades 1–3, although – for obvious reasons – there were more of them produced by the latter. Providing the distinctive characteristics of this group of drawings, it is evident that their creators coped with presentation of movement in their artistic expressions in a relatively successful (as compared with their peers) way. There occur in these drawings often successfully accomplished attempts at displaying motion through not only bent limbs, but also the bent trunk of the body, its specific positioning, profiled silhouettes, differences in their sizes, adding graphic elements, such as an arrow, a stroke or a streak, aimed to strengthen the dynamism of the drawing.

Distinguishing the last group of the high level of children's skills seems purposeful to the author in order to indicate that among the analysed drawings there did appear ones that were decidedly outstanding by representing a higher standard of children's drawing competences, yet, in principle, slightly artificial at the same time, since the ways of expressing movement remained almost identical with those used by the children whose works were classified as displaying the medium level. There appeared the following elements here: bent limbs, bent trunks (the only element which was not found in the drawings of the medium level group), arrows, streaks and lines to intensify the impression of movement. The fact is, though, that there are more elements representing motion in the drawings of the third group; the artistic standard of these works is higher, as well. Similarly, their composition and colouring are better, representation of the sizes of presented elements is more accurate and the use of stroke is surer and more skilful.

It turns out to be hardly possible to juxtapose the results of the author's own study against those obtained by other researchers, since little research of this type has been conducted on this subject. One can try to do this with respect to the research of Szuman and Hornowski, though. Such a comparison can only be of the referential character due to the fact that in the studies which are taken into consideration here, the children's age groups were slightly different. Accordingly, the results of this author's studies which concern imaging movement in drawings point to a higher level of contemporary children's skills

in comparison with the results obtained by Szuman and Hornowski. The former stated that in the group of 6-8-year-old children, 78% of the drawings lacked in any movement (1990, p. 48), whereas regarding this author's own research, in the group of slightly younger children (5–6-year-olds) there were only 69.4% of such works. A similar tendency occurred with reference to groups of older children. Given that S. Szuman stated that as far as 9–10-year-old children were concerned, there were 64% of works on the low level (without any signs of motion) (1990, p. 48), the author found 33.3% of the drawings on this level among works produced by, again, slightly younger children (7-9 years old), which means much fewer in comparison. On the other hand, results of the author's studies that are similar to those obtained by Szuman concern the children's skills qualified as high. In Szuman's studies, they were found only in one group (9–10-year-olds) in the case of 4% of the drawings (1990, p. 48), while regarding the author's research, the result has been as follows: 1.4% of children 5-6 years old and 2.7% of children at the age of 7-9 years. The indexes in the own research turned out slightly higher than those found in Szuman, still, the children were younger.

In turn, in comparison with the research results published by Hornowski, who did not observe any attempts at illustrating movement in the works of 5–6-year-old children (1970, p. 163), while with reference to older children (aged 7–9 years) he reported the occurrence of such endeavours only in 20% of the drawings by 9-year-old children, the results of the research conducted by the author of this article point to a higher level of the children's skill of expressing motion. The present findings suggest that drawings qualifying at the medium and high levels, that is, the ones in which children visibly undertake to illustrate movement with greater or lesser success, appear already in 5–6 year old children (30.6% of the drawings), whereas in the group of 7–9- year-olds their number amounts to 66.7%.

The above comparisons allow one to concluding that contemporarily children try to represent movement in their drawings more often than their greatgrandparents used to do in their childhoods.

## Conclusions

The analysis of children's drawings allows the formulation of a few conclusions which complement the analyses conducted earlier and, at the same time, attempt to provide answers to the detailed questions asked at the beginning:

- 1. The 5-6-year-old preschool children and 7-9-year-old pupils of early education examined by the author of this article generally created drawings which are characterized by a lack of dynamism (51.3%) or endeavoured to illustrate movement, their attempts being more or less successful (46.6%). Along with advancing age children perfect their skills in this respect. Basically, the general level of a drawing, the artistic impression it makes, corresponds to the child's skill of illustrating movement. This is not always so, though. Sometimes the child's manner of drawing is primitive, yet by still poor means of artistic expression, the child does make efforts to invest the picture with the impression of dynamism – representing motion, like a ball moving in the air, a hand waving or a leg being raised or kicking a ball, marked with an arrow or a stroke. Sometimes the human figures drawn in a primitive way are distributed by the child in space, for example, a girl's raised plaits can be seen above the activity (Klanza) sheet, which is to suggest hopping, dynamic swinging, or the like. On the other hand, there are drawings which are very neatly executed, elaborate, pleasant to look at and expressive, yet lacking in any attempt to represent movement, even though the suggested theme clearly invited the child to make reference to the plot and asked for a dynamic treatment. It seems thus that the child's knowledge and awareness connected with logical principles of drawing, which could support them in meeting the challenge of technical difficulties, are of key importance. Still, most commonly, the solutions which children propose in their drawings are rather poor and greatly restricted. However, to children who are drawing and are eager to illustrate movement, their skills do not pose a great barrier, since the young creators usually find some means to show what they want in their pictures anyway.
- 2. The child's sex is a factor that makes a difference as far as expressing movement in drawings is concerned: girls generally do better in coping with this task than boys. It happens more often, as it was observed while analysing the children's works, that simplifications and less care for detail characterize boys' pictures. Girls, on the other hand, (and this is with reference to both pre-schoolers and pupils of Grades 1–3) make their drawings more elaborate, colourful, with a greater attention paid to details and neatness, and present a higher level of drawing skills. Boys' drawings, more often than girls', give the impression of being done in a hurry, without being thought over, with less involvement, although sometimes despite the rather primitive technique they represent it is clearly seen that while they were drawing their pictures, they did want to reflect the dynamic character of the situation or event

which was being illustrated. The author's observations do not agree with the comments made many years ago by Kerschensteiner who, comparing girls' and boys' drawings, pointed to an advantage of the latter who – in the researcher's opinion - surpassed girls regarding the skill of drawing features of different objects, with the exception of decorative drawings (quoted from Hornowski, 1970, p. 38). Nevertheless, the results of the present author's earlier research conducted, among others in 1996 and later, point – similarly as these obtained now – to "a slight advantage of girls over boys regarding the skill of drawing a human figure" (Jędrzejowska, 2014, p. 126).

3. Comparison of the standard of the skill of expressing movement in drawings of contemporary children with that emerging from the research results reported by other researchers indicates that modern children undertake to illustrate movement in their drawings more often than their counterparts examined by Szuman and Hornowski. The analysis of children's drawings inclines the present author to make one more observation, that is it follows from her assessment that the general level of handling drawing by children examined in 2019 seems lower and their skill of applying artistic means appears poorer than those observed in the same author's studies conducted on a broad scale (2,400 drawings and paintings) among preschool children in the years 1996, 2004 and 2012, with the aim to analyse children's artistic creativity. It seems that the causes behind this state of things can be seen in the fact that today's children are - to a much greater extent - immersed in the world of new technologies which naturally and overwhelmingly enter the lives of the young at very early stages of their development. Consequently, children find them easier and much more attractive to use than a crayon and a sheet of paper. However, this last comment rests on the author's purely subjective evaluation and certainly requires a thorough empirical confirmation.

Generally, it can be stated that both preschool children and pupils of early education are incapable of expressing movement properly in the drawings they produce. Nevertheless, it seems that to the child who wishes to express him or herself through drawing (since this is a very important means of communication at this age) this does not pose a serious problem. The majority of children find some way to illustrate movement, their limited technical skills not presenting an unsurmountable obstacle to them.

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