

Characteristic Features of Digital and Analogue Self-portraits of Children

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Biography

Hajnalka Kovács is a graphic artist, college assistant lecturer at John von Neumann University (NJE), Kecskemét, Hungary. She teaches visual education courses including Visual communication and Puppetry. Kovács is a PhD student at ELTE University Budapest. Her current research field is the study of children's drawings focusing on the analyses of analogue and digital visual expression of children. Kovács is a member of MTA-ELTE Visual Culture Research Group supported by the Hungarian Academy of Science. She takes part in curriculum development research, has developed the Visual communication module of the research programme, and she is currently working on the trial of it in upper primary schools.

Abstract

Visual communication has a determining role in the 21st century communication. Most elementary schoolchildren have a tool which they can use to create digital pictures. Moreover, they regularly make and share these pictures. At the same time, fewer and fewer pictures are made in a traditional way – on paper, in pencil, pen, brush etc. In this paper, it is explored how children

can depict themselves in happy and sad self-portraits in traditional and digital ways. The research project started in 2015 investigates the development of visual language of 6-10-year old primary school students through four drawing tasks. More than 300 students from 15 classes (Grades 1-4) in two primary schools in Kecskemét (Hungary) performed four drawing and designing tasks. The themes for the digital and traditional media images were the same. The results of one of the tasks in which students created a double picture of themselves will be presented here. In the first picture they depict themselves happy and in the second sad. My aim is to point out how media and theme affect the communicative value of children's drawings. The aim is to explore what aspects (e.g. media, sex, age, etc.) determine the characteristic trends of visual expression in the examined works of children.

Keywords

Analogue and digital media, visual competency, visual communication, visual language of children.

PART ONE – research results and ongoing research projects in the field of children's visual communication

Digital imaging is part of the curricular modules developed by the Visual Culture Research Group of the Hungarian Academy of Sciences and Eötvös Loránd University. The educational methodology of their current project is based on the ideas and achievements of the famous Hungarian artists and art theorists, Moholy-Nagy László and Kepes György, masters of the Bauhaus art, craft and design academy. The Hungarian masters of the Bauhaus developed a range of new methods for using innovative imaging technologies and introduced media arts in design

education. Their life-work served as a model for developing the Moholy-Nagy Visual Modules, a research-based art education (Gaul-Ács and Kárpáti, 2016, Gaul et al., 2018). As a member of the research group I have developed the Visual Communication curricular module for the upper grades of primary school for ages 11-14. In the newly developed Visual Communication module the combination of traditional and digital tools in multimedia creations has been in focus.

In contemporary education, as in everyday life, visual communication has become a dominant form of expression. To provide our students with useful, up to date and authentic knowledge as well as the right attitude to adapt to and eventually transform their visual environment, traditional and digital forms and genres of expression should be taught and acquired simultaneously. In order to realize this objective, we have to be aware of the characteristics of visual influences on children's everyday life and study their effects on their development of visual competencies.

When describing the content of contemporary visual literacy of children and youth, formal features of psychological theories of graphic development (Arnheim, 1969, Loewenfeld, 1963/2013) should be enriched or contrasted by early acquisition of new forms of (digital) imaging and popular culture (Freedman, 2015). Children and adolescents seem to acquire both the forms and techniques of contemporary visual imaging expression mostly through peer learning and mentoring (Freedman et al., 2013, Kárpáti et al., 2016), - a process that starts as early as the primary school years.

Therefore, the new European Framework for Visual Literacy also integrates situation-based, colloquial use of visual language with basic 21st skills like digital literacy and media literacy (Schönau and Wagner, 2016). The author is involved in a research project within the European Framework of Reference for Visual Literacy, which was developed by 60 researchers from 11 countries (ENViL, <http://www.envil.eu/>). In a longitudinal study launched in 2014,

the diagnostic assessment of spatial skills, symbolisation practice and visual communication of 3-14-year-olds are examined to pilot this framework. The study briefly reported here, was based on this framework and executed in 2015-2016 to document childhood art development in traditional and digital media. In the age of increased imaging, drawing performance seems to have accelerated and digital means of expression have become as natural forms of picturing the world as traditional media.

PART TWO – The analysis of digital and analogue self-portraits

Our study is aimed at the longitudinal investigation of child art in traditional and digital media from Kindergarten to lower primary school level (ISCED 1, ages 6-10 years). Four situational tasks (with themes related to situations at the institution or in private life) were completed by more than 300 children and their performance compared in terms of form depiction, expressivity, composition, the use of colour and aesthetic appeal. In this longitudinal study launched in 2014, the spatial skills, symbolisation and visual communication of 3-14-year-olds had been assessed. Four tasks (map of a real or imaginary place to (re)visit; double self-portrait in sad and happy mood; dwelling for a favourite fictional character; filling out spatial outlines) were completed by the children taking part in the research and their performance compared in terms of form depiction, expressivity, composition, the use of colour and aesthetic appeal. The research instrument was developed by Andrea Kárpáti (Kárpáti, 2015, pp. 23-29). In one kindergarten and in all the primary schools of the sample, children completed the tasks using traditional tools (pens, pencils, crayons, paint) and digital tools (creative software applications for interactive whiteboards, laptops and tablets) as well. Their works have been compared and resulted about the role of the medium in child art development.

Two pilot studies were carried out to test the reliability of the instrument. One research finished in Nyitra (Slovakia) with 6-11-year-old students (Lehotáková, 2017) and another one

in Budapest with 3-6-year-old children in 11 Hungarian Kindergarten groups. (Gaul-Ács and Kárpáti, 2018, Gaul-Ács and Kárpáti, submitted). The study reported here concerns students of 15 classes in the lower sections of two primary schools: the practice school of John von Neumann University and a mainstream primary school in Kecskemét. Altogether, 300 children aged between 6 and 10 took the four drawing tasks both digitally and with traditional media (colour pencils and felt tipped pens). After completing their drawings, all children explained their work in a video interview. The themes for the digital and traditional media images were the same. Research questions targeted similarities and differences of drawings made in an analogue and digital way; effects of media on the level of technical drawing skills; the quality of expression and the communicative value of the works.

In this paper, one of the four tasks, the analogue and digital self-portrait in different emotional states are analysed. Children were asked to complete the self-portraits in both emotional states. For this task, we used a horizontal format A4 paper on which we indicated the middle line (by pencil or by folding in the centre). Then children were asked to create the two portraits – one in the right half and another on the left half of their paper. I gave the following instruction: “Make two drawings of yourself. A happy one in your favourite outfit, and a sad one in a piece of clothing you don’t like. When you have finished the drawings, tell me which one is happy, and which one is sad.” The answers are recorded on the back of the drawings.

Children made their double self-portraits in two settings. First they drew in analogue way, in felt tipped pen on A4 drawing sheet. Later, children created another drawing in the same topic, followed the same instruction, but this time they used IT tools. The result was a digital drawing made with Paint software (Figure 9). I had the possibility to work with the students in art classes and IT classes. Both lessons took forty-five minutes, so children got approximately thirty-five or nearly forty minutes, which was in most cases enough to finish their pictures (Kovács, 2017).

As children needed some IT drawing skills to complete the task, I examined both the tech-

nical background of the schools and the digital literacy of the children. I observed in the pilots, that if Information Technology facilities are inadequate or not in regular use at school and / or at home, children might face technical problems in expressing themselves with digital tools (Kovács, 2018). To level these differences, we provided a 45-minute lesson time to familiarise with the Paint program (a period that proved to be enough for those with less experiences to master the basic functions of the tool others already knew before starting the digital drawing test. For this preparatory period, I developed some tasks which was enough inspiring for the children such as Space and planets or Castles and palaces. These themes allowed children to practise manipulation and composition digitally. I used a projector to demonstrate basic function. While I was drawing, children could follow the process on the screen and simultaneously they could start testing the tool (Figure 1).

After the preparation I implemented the task. I used the scoring guide of the assessment instrument to evaluate drawings according to aesthetic and technical qualities. Thus, a developmental trajectory of expressive and symbolic drawing competence from first grade up to fourth grade was described. I also observed the similarities and differences between analogue and digital drawings, and between the works of boys and the works of girls. As a result of this analysis, the following characteristics can be observed.

Expression of happiness shows differences by gender. When girls draw happy pictures about themselves, they present themselves in fashionable clothes. (Figure 2) Happiness and fashion are connected and appear together – both in Andrea Kárpáti and Ágnes Gaul-Ács's research (in the kindergarten sample, ages 3-6) and in my research in lower primary schools (ages 7-10, Gaul-Ács and Kárpáti, 2016; Kárpáti and Kovács, 2015). On the other hand, when boys draw happy self-portrait, they most often present themselves in sports clothes while doing sports. A typical explanation from a nine-year-old boy about his self-portraits: On the sad picture I am inside the house, wearing jeans which is tight and inconvenient, I can't move. On the happy

picture I am wearing sport suit, I have got it for my name day. This is a Real Madrid suit, since this is my favourite soccer group. (Figure 3)

The background of images also shows differences related to age. In analogue drawings, nearly two-thirds set themselves in a concrete place. In some cases, different signs and symbols surround the character. (In digital drawings, backgrounds are observable less frequently). However, in both media, backgrounds show similar characteristics. The majority of the scenes are exterior spaces. There is direct connection between the mood of children and the natural background they present. We can find many pantheistic visualisations of feelings in children's pictures, where the natural scene expresses the emotions. "When I am in a good mood, the tree blossoms" – told an eight-year-old girl in connection with her picture. The following natural phenomena appear typically in sad mood self-portraits: rain, dark clouds, mud, puddle, and lightning. While we can see the following typical natural phenomena in happy mood self-portraits: shining sun, flowers, green grass. We can observe this in all age groups, but it is more frequent and more expressive among girls and at younger ages. (Figure 4 and 5)

When girls draw happy self-portrait, they often present themselves in fashionable clothes (a dress) in the nature, among flowers. When they are sad, the natural background turns into gloomy, cloudy, rainy weather. Boys especially depict themselves wearing sport suit when they are happy. They also use pantheistic elements – although flowers appear very rarely, but sunshine contra rainy weather is quite typical – to represent emotions. Girls aged 6-10 use more colours. The most popular colours among girls are pink and light blue. Colours often have easy to decode meanings: for example, black, brown, dark green and grey express sadness. When children want show that they are sad, they use these colours more frequently than in happy pictures (Figure 4).

Besides colours, a quarter of the children use symbols, too. Most of the symbols are frequently used signs of everyday life as a smiley, sad face or a heart shape (Figure 6). However,

in some cases there are special symbols created by the child, for example one child used a carnivorous flower to express the feeling of being threatened. The same symbol appears in a girl's picture in a similar situation, which is the result of desk mate copying. Desk mate copying is quite typical at this age (Figure 7 and 8). The expressive tasks solicited more symbols than the representational tasks as observed in a previous study of the same age group (Kárpáti and Simon, 2014).

Finally, there are some distinctive differences between analogue and digital drawings. Working with computers children evidently use a different visual language in which there are less details, appears a strong influence of computer games, role of colours is more dominant, more signs and symbols are used, and composition is more balanced (Figure 6 and 11). Digital imaging allows children to vary colours and find the proper one quite simply and quick. The possibility to change size and position of the elements easily can result a better composition.

Modifiability in a creative process provides children supports braveness and self-confidence for those who have difficulties in drawing. In terms of quality, however, there is no linear correlation between drawing quality and medium (digital or analogue). Children who draw well using traditional tools, do not necessarily excel using a graphic software. Moreover, when a skilful student uses digital tools, rich details which characterise his or her analogue drawings is likely to disappear. On the other hand, those who are not really successful in drawing with pen and pencil, may create much better pictures when they can make corrections by digital tools. (Figure 10 and 11).

PART THREE – Integration of research results in to curriculum development

The research results presented here have been built in the curriculum development process. Encouraging digital imaging provides a chance for students with good design ideas to realise

their plans a supportive environment where their inferior drawing skills are not an obstacle impossible to overcome.

Digital imaging is part of the curricular modules developed by the Visual Culture Research Group of the Hungarian Academy of Sciences and Eötvös Loránd University. As a member of the research group I have developed a curricular module the Visual Communication for the upper grades of primary school for ages 11-14. In the newly developed Visual Communication module the combination of traditional and digital tools in multimedia creations has been in focus. (Figure 12) Based on this pedagogical concept, the Art and IT teachers of John von Neumann University Petőfi Sándor School of Teaching Practice in Kecskemét town created their own teaching programme, and started piloting their visual communication curriculum modules in 2017.

The use of traditional and digital creative processes in Visual Culture and Information Technology - two disciplines that have never been meant to work in synergy before in Hungarian education – and the cooperation of the two subject teachers with different backgrounds is perhaps the most important innovation of the project, and also an innovative approach to the artistic and educational heritage of Laszlo Moholy-Nagy. The skills assessment project reported here supports our core idea: digital and traditional imaging can and should be taught in synergy.

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Figure 1: "Space and planets"
How to use Paint software?
Students are practicing in the preparatory phase



Figure 2: Happiness and fashion – analogue drawing
a girl aged 8



Figure 3: Happiness and sport – analogue drawing
a boy aged 9



Figure 4: Happiness and sport – digital drawing
a boy *aged 9*



Figure 5: Pantheistic visualisations of emotions – analogue drawing
a girl *aged 9*



Figure 6: Pantheistic visualisations of emotions – analogue drawing a girl *aged 7*

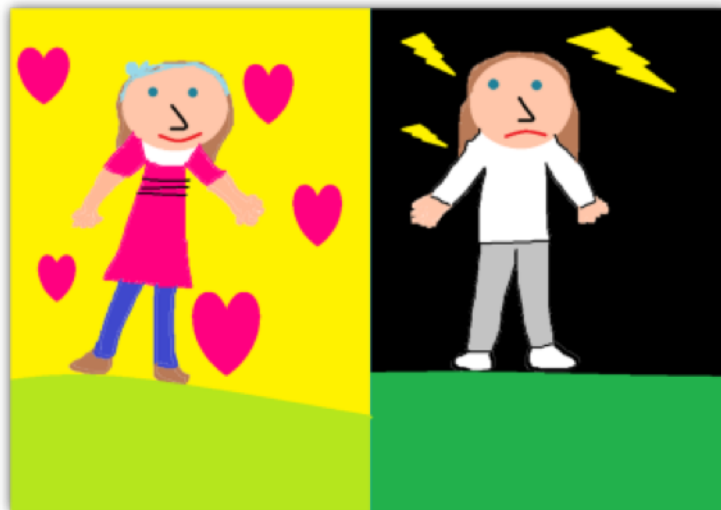


Figure 7: Visualisations of emotions with colours and symbols – digital drawing a girl *aged 7* – the same child as in Figure 5



Figure 8: Carnivorous flower: special symbol created by the child, to express the feeling of being threatened
a boy aged 6



Figure 9: The same symbol as in Figure 7 (deskmate-copying) – analogue drawing
a girl aged 6

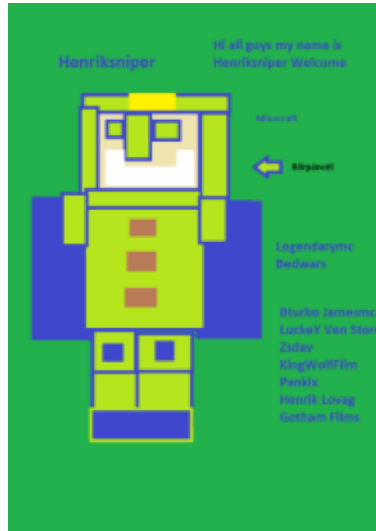


Figure 10: Happy digital self-portrait influenced by Minecraft a boy *aged 9*



Figure 11: Happy and sad analogue self-portrait a boy *aged 9* – level under age standards



Figure 12: Happy and sad digital self-portrait a boy *aged 9* – the same child as in Figure 10



Figure 13: Combination of traditional and digital tools in multimedia creations project of the Visual Communication module

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