Preschool Day Care and Artistic Expression of Pupils in the First Grade of Primary School

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Abstract

We were interested in specific differences among pupils with regard to the type of preschool day care (parents, grandparents and kindergarten) in order to explain whether the environment in which the child lives before school enrolment has any influence on the development of his/her artistic abilities.

Results of the study prove that pupils who spend their preschool period with their parents or grandparents achieve better results in art, especially in the techniques of charcoal drawing and collage painting.

Keywords: *art, preschool day care, artistic expression*

Introduction

Children spend the time between their birth and school enrolment in different environments. A question arises whether art activities related to different environments before school enrolment have any impact on the artistic creativity of children attending the first grade of primary school.

Children develop at different rates, some progress faster, some more slowly and some fall behind. According to some authors (Fabes, Martin, Hanish, Anders and Madden-Derdich, 2003), early experience, knowledge and skills which children develop before school enrolment have an important impact on their later development in school (Marjanovič, Umek, Fekonja and Bajc, 2006). However, for the child's development also his or her own activity or action is crucial (Peček, Čuk and Lesar, 2009).

Children often learn spontaneously, outside of kindergarten and school. In their own way they shape the world around them, observe their surroundings, ask questions and experiment with different materials. When the child watches television or looks at pictures in a book, this is not only a way of representing things, because children also link this experience to a special type of mental activity, which in time becomes a structure of their minds (Wood, 1995). Preschool activities, in which the child takes part, and incentives for artistic activities influence his or her later artistic development in the first grade of primary school.

Children start to develop artistically between the ages of one and two years. At that time they notice materials which leave stains, and they even notice that their interference with the outside world has some consequences. Simultaneous processes of growing up and learning affect the child's development in the preschool period. Moreover, these processes reflect in the development of psychomotor skills, in learning about the environment and acquisition of this knowledge as well as in development of abilities and the need to show knowledge (Duh and Zupančič, 2003).

Artistic development in early childhood

Artistic development of preschool children is related to their cognitive processes, motor development and can be even related to the use of art materials. Recent research into artistic development proves that the abilities of artistic expression follow Piaget's stages of cognitive development (Starč, Čudina Obradović, Pleša, Profaca, Letica, 2004). Children aged from five to six mainly draw what they know about objects. Researchers (Freeman, 1980; Luquet, 1927; Piaget and Inhelder, 1956; in Marjanovič Umek, 2004) designate this stage as intellectual realism. Duh and Zupančič (2003) called the period between the ages of four and six a stage of composite symbols. Children are under the influence of perceptions and this is why what they see is important for them. After the age of six, the child's drawing is even more based on what s/he sees and this stage is called visual realism. Children present some action, their drawings are more complete and the actions are shown in a chronological order. Intensive artistic development is typical of children aged from four to seven, their artistic expression enhances every three months, which can particularly be seen in the depiction of man (Karlavaris, 1991). Different sources indicate the duration of the individual periods differently. The differences occur due to different environments in which children live, but otherwise children go through all the stages described (Duh and Zupančič, 2003).

The role of preschool education in the development of children

The child's development takes place at successive stages. The most important periods in the child's development are the ones most suitable for obtaining individual skills and for learning things in the most effective way (Kurikulum za vrtce, 1999).

In all areas influences of the social environment and culture in which the child is born and lives, as well as the forms of education, size of family, parents' education and profession and the birth order of children, play an important role in the child's development (Horvat and Magajna, 1987).

When examining the role of kindergarten in the child's development in Slovenia (Marjanovič Umek, 2004) it was concluded that kindergarten has a positive influence on the child's cognitive, speech and social development. Common findings showed that, taking into consideration the development perspective, children benefit from attending kindergarten. This can especially be evident in children whose parents have a lower level of education and live in a less encouraging family environment (Lešnik and Marjanovič Umek, 2005). Moreover, the quality of the kindergarten the child attends is of great importance (Marjanovič Umek and Zupančič, 2004). As stated by Vonta (2011), contemporary research in Slovenia confirms the influence of quality programmes for children, since children who attend kindergarten in their preschool period are later more successful at school, achieve a higher level of education and have less antisocial behaviour. A case study (Kljajič and Duh, 2011) found that the influences of the environment could also be evident in the later artistic development in the first grade of primary school, since the child who did not attend kindergarten had a low self-image. Research in the field of preschool day care (cf., Heathet, 2008) proves that the home environment has a significant influence on the child's readiness to attend school and later also on his/her further levels of success. Children who live in poverty and do not attend institutional preschool day care do not have a favourable environment for learning at home. A study conducted in Ontario in 2000 examined the effects of full-day and half-day preschool day care on children as well as parents' satisfaction. The results proved that full-day kindergarten day care has a positive effect on the child's development. Moreover, later it has also been proved that those children were more socially flexible and had better motor skills than the ones who attended half-day care (Herry, Malthais and Thompson, 2007). Research results (Fabes et al. 2003) prove that children who come from socio-economically and culturally less stimulating environments have fewer opportunities to achieve higher levels of development in the field of speech and cognition and thereby also fewer possibilities to achieve educational success in primary school.

Role of the teacher and the child's enrollment into primary school

Both for children and their parents the shift from the preschool environment to the first grade of primary school is a big turning point in their lives. The first grade teacher has to face many challenges since s/he has to get to know pupils and accordingly s/he has to plan the learning process for all subjects, including art education. The most basic guidance for the teacher is the primary school syllabus. In the first grade of Slovenian primary schools in the learning process children should learn art concepts at the most basic level, they are guided in expressing their art skills spontaneously and in acquiring basic art-expressive experience.

In the Slovenian syllabus for art classes (Učni načrt, 2011) the fields of art are divided into surface modelling (drawing, painting, graphics) and three-dimensional modelling (sculpture, architecture). In art classes it is important that children develop evaluation skills, such as observation and perception of works of art. "At primary school we avoid intellectual evaluation, which is based on the basis of particular aesthetic principles and rules which children are just starting to learn" (Duh, 2004 p. 50).

Study Aims

The purpose of the study was to examine the level of artistic abilities and skills of first grade pupils in the implementation of the twelve didactic units. We wanted to find specific differences among students taking into consideration the day care at the time of early childhood (parents, grandparents, kindergarten) in order to explain whether the environment in which the child lives before school enrolment has any influence on the development of his/her artistic skills.

Hypotheses

The following hypotheses were formulated:

- H1: Pupils who attended kindergarten before school enrolment will be more successful at drawing with pencil than those who spent their preschool period with their grandparents or parents.

- H2: Pupils who attended kindergarten before school enrolment will be more successful at crayon painting than those who spent their preschool period with their grandparents or parents.
- H3: Pupils who attended kindergarten before school enrolment will be more successful at sculpture, clay modeling, e.g. vase modelling, than those who spent their preschool period with their grandparents or parents.
- H4: Pupils who attended kindergarten before school enrolment will be more successful at charcoal drawing than those who spent their preschool period with their grandparents or parents.
- H5: Pupils who attended kindergarten before school enrolment will be more successful at painting and the technique of collage, than those who spent their preschool period with their grandparents or parents.
- H6: Pupils who attended kindergarten before school enrolment will be more successful at space design, the technique of assembling cardboard boxes, than those who spent their preschool period with their grandparents or parents.
- H7: Pupils who attended kindergarten before school enrolment will be more successful at ink drawing than those who spent their preschool period with their grandparents or parents.
- H8: Pupils who attended kindergarten before school enrolment will be more successful at painting, the technique of gouache, than those who spent their preschool period with their grandparents or parents.
- H9: Pupils who attended kindergarten before school enrolment will be more successful at graphics, the technique of potato printing, than those who spent their preschool period with their grandparents or parents.
- H10: Pupils who attended kindergarten before school enrolment will be more successful at space design, the technique of paper flowers, than those who spent their preschool period with their grandparents or parents.
- H11: Pupils who attended kindergarten before school enrolment will be more successful at graphics, the art technique of monotype, than those who spent their preschool period with their grandparents or parents.
- H12: Pupils who attended kindergarten before school enrolment will be more successful at sculpture, the technique of clay modelling – clay models of pets, than those who spent their preschool period with their grandparents or parents.

Methodology

Basic research method

The study was based on a descriptive and causal-non-experimental method of empirical educational research. For in-depth research on the artistic development of children, the most appropriate approach is a qualitative one, since it makes it possible to monitor the process of making of a work of art (Duh, 2009).

Research sample

In the study, a purposive sample of first grade pupils ($n=156$) from Slovenian primary schools was used. Among them there were 117 (75 %) pupils who attended kindergarten, 21 (13.5 %) who were taken care of by their grandparents and the remaining 18 (11.5 %) were taken care of by their parents.

Data collection procedures

In order to collect the data for the research we used the pupils' works of art and photographs, and an observation sheet – coding scheme for the assessment of the pupils' artistic skills. The pupils' work was observed through twelve art tasks carried out in different art techniques. Observation sheets were conceptualized for each field of art specifically, a four-level scale referred to the observation of the pupils' individual abilities and skills as well as the skills needed for the performance of art tasks. The observer took notes also about other observations concerning individual pupils, namely the pupils' perceptions, use of materials and motivation. The cognitive, affective and psychomotor areas of the pupil's personality were observed. Drawings and other works were made in normal working conditions in art classes. Data was collected from September till November 2012, at the time when the influence of school and consequently the role of the teacher are not so decisive yet.

Metric characteristics of the observation sheet – coding scheme

Validity of the observation sheet with a four-level scale was based on current scientific findings of the pupils' artistic development. The instrument validity also proved compliance with the teacher's evaluations of pupils' works of art.

Reliability was based on the teacher's qualifications for the examination according to the four-level scale and detailed instructions.

Objectivity was ensured by the fact that the teachers were acquainted with the objectives of the study and the consequences. In this context, it has to be emphasized that the results are not used for formative or summative monitoring

of the pupils, nor to assess them or to assess the teacher's work. Results can be used exclusively for research purposes.

Data processing procedures

The data obtained from the observation sheets was processed with the SPSS statistic software in accordance with the research purpose and hypotheses. The mean of the numerically expressed levels of skills was calculated (1 – needs help at work, 2 – needs guidance and advice, 3 – skilful, but occasionally needs advice, 4 – skilful and independent at work). For testing the differences in grades with regard to the type of day care, the Kruskal–Wallis test was used.

Research results

Firstly, average skill assessment levels (1 – needs help at work, 2 – less skilful, 3 – satisfactorily skilful, 4 – skilful and independent at work) in the performing of art techniques or tasks are to be presented.

Table 1. Techniques ranked according to mean ($\bar{x}$)

Techniques	$\bar{x}$
Pencil drawing	2.040
Potato printing	1.895
Clay modelling – vase	1.860
Clay modelling – animal	1.794
Paper modelling	1.732
Painting – gouache	1.676
Monotype	1.674
Charcoal drawing	1.660
Ink drawing	1.623
Assembling cardboard boxes	1.611
Crayon painting	1.608
Collage – cut paper	1.510

The table shows that according to the teachers' assessments, the children were most skilful at pencil drawing ($\bar{x} = 2.040$), followed by potato printing ($\bar{x} = 1.895$), vase modelling in clay ($\bar{x} = 1.860$), animals modelling in clay ($\bar{x} = 1.794$), paper modelling ($\bar{x} = 1.732$), painting – gouache ($\bar{x} = 1.676$), monotype ($\bar{x} = 1.674$),

charcoal drawing ($\bar{x} = 1.660$), ink drawing ($\bar{x} = 1.623$), assembling of cardboard boxes ($\bar{x} = 1.611$), crayon painting ($\bar{x} = 1.608$), and the collage technique ($\bar{x} = 1.510$) was at lowest level.

According to the four-level scale (1 – needs help, 2 – less skilful, 3 – satisfactorily skilful, 4 – skilful and independent at work) all average assessments are quite low (from 2.04 to 1.5), which proves that in terms of the development of artistic skills the first grade pupils are assessed less favourably.

The pupils are unskilful at cutting hard paper and gluing. Folding paper down the middle and ormatting it presented quite a problem to them. In painting, their problem is to fill in the empty space with colours as well as the use of a brush. New techniques are interesting to them, but they are unskilful at their implementation, especially at charcoal drawing and the collage technique.

Below are the results of the analysis taking into consideration the type of early childhood day care.

Table 2. Results of the Kruskal-Wallis test concerning the level of skills at implementing the twelve art tasks from different art fields and different art techniques regarding type of day care.

Technique	Type of day care	N	$\bar{R}$	χ^2	p
Pencil drawing	Kindergarten	116	75.47	0.334	0.846
	Grandparents	19	79.03		
	Parents	17	80.74		
Crayon painting	Kindergarten	113	71.69	5.520	0.063
	Grandparents	19	93.32		
	Parents	16	72.00		
Clay modelling – vase	Kindergarten	104	67.64	0.989	0.610
	Grandparents	19	65.63		
	Parents	16	76.94		
Charcoal drawing	Kindergarten	114	69.41	11.710	0.003
	Grandparents	20	96.00		
	Parents	16	93.25		
Collage – cut paper	Kindergarten	112	69.38	10.710	0.005
	Grandparents	19	99.03		
	Parents	16	76.63		
Assembling cardboard boxes	Kindergarten	109	70.38	1.608	0.448
	Grandparents	18	79.92		
	Parents	17	78.26		

Technique	Type of day care	N	$\bar{R}$	χ^2	p
Ink drawing	Kindergarten	114	74.30	1.204	0.548
	Grandparents	19	77.87		
	Parents	18	84.78		
Painting – gouache	Kindergarten	111	71.38	2.957	0.228
	Grandparents	19	82.92		
	Parents	18	84.86		
Potato printing	Kindergarten	115	72.32	5.184	0.075
	Grandparents	20	91.83		
	Parents	17	86.76		
Paper modelling	Kindergarten	107	69.26	0.029	0.986
	Grandparents	18	70.78		
	Parents	13	69.73		
Monotype	Kindergarten	106	67.81	5.715	0.057
	Grandparents	20	89.03		
	Parents	15	69.50		
Clay modelling – animal	Kindergarten	105	69.02	1.498	0.473
	Grandparents	19	80.39		
	Parents	17	72.71		

The results prove that there is a statistically significant difference in the level of art skills among the pupils taking into consideration the type of early childhood day care in the technique of *charcoal drawing* ($p = 0.003$) and the collage technique ($p = 0.005$). In both techniques the highest level of skills was shown by the pupils who spent their preschool period with their grandparents and the lowest by the ones who attended kindergarten. Therefore, the H4 and H5 hypotheses could not be confirmed. The reason for such results can be the fact that grandparents have time for their grandchildren, spend a lot of time with them, give them scissors, coloured paper and other materials, such as charcoal. In kindergarten, children are in groups, they have to adapt and listen to the teachers' instructions. In some situations children have to be independent and take their own decisions about the performance of different tasks. The teacher's individual attention to each child in all activities is, unfortunately, not possible.

The existence of a tendency at the level of artistic skills among the pupils taking into consideration the type of preschool day care can, however, be evident in the following techniques: *crayon painting* ($p = 0.063$), *potato printing* ($p = 0.075$) and *monotype* ($p = 0.057$). The pupils who spent their preschool period

with their grandparents were the most skilful at these techniques, followed by those who spent it with their parents and the least skilful were the ones who attended kindergarten. Therefore, also the H2, H9, H11 hypotheses could not be confirmed. The results obtained suggest that perhaps the professionals in kindergarten do not address some art techniques, such as printing and monotype, which require more preparation and whose implementation itself also requires more guidance. Worrying is the fact that there is also a tendency at the level of artistic skills in crayon painting, because all children in kindergarten have crayons and it has been assumed that they use them as well. It can be seen from the comments of two teachers who carried out art classes that the reasons for the unskillfulness can be in the work of individual pupils as well as in the bad quality of the crayons.

However, other results prove that there are no statistically significant differences in the level of artistic skills among the pupils regarding early childhood day care in the techniques of clay modelling, paper modelling, assembly of cardboard boxes, ink drawing and painting – gouache. Therefore, also the H3, H5, H6, H7, H10, H12 hypotheses could not be confirmed.

According to the results obtained it can be concluded that either parents, grandparents or teachers in kindergarten can, if they are open to individual art techniques, unobtrusively offer children a variety of materials and consequently develop their motor skills.

Conclusion

In this study we examined the differences in the level of artistic expression among the pupils considering early childhood day care (kindergarten, grandparents and parents) in individual art techniques at the beginning of the first grade when the influence of school is not evident yet. The research shows that even children who spend their preschool period with their grandparents and parents have many possibilities to develop artistic creativity in all fields of art. We discovered that statistically significant differences in charcoal painting and the collage technique are in favour of the children who spent the preschool period with their grandparents and parents. The existence of the difference tendency, which is reflected in the level of the artistic skills of the children according to the early childhood day care, in the technique of crayon painting, potato printing and monotype, is in favour of the pupils who spent their preschool period with their grandparents and parents, which also points to the fact that at home they

are offered these materials to work with them, and this probably enables them to unobtrusively develop artistic abilities through play. The obtained results remind us that children do not have enough experience with certain materials and art techniques in kindergarten, and, as stated by Dryden and Vos (2001), children learn best by experience, which involves all the senses. Play is one of the most efficient methods of learning. It is important that children learn by doing. For the field of art this means that they should be given different materials which they can knead, roll, cut, fold and form in different ways. Moreover, it enriches their emotional life, develops their imagination, emotions, memory, and speech, stimulates inventiveness, develops motor abilities, enables calmness and fully influences personality development (Turković, 2008). It would be very interesting to research differences in the achievement of children in the field of art in the first grade in comparison to their achievements in the second grade. Additionally, it would be sensible to offer training and art workshops where professionals employed at kindergartens would try different art techniques themselves.

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