

DOCUMENT RESUME

ED 400 095

PS 024 630

AUTHOR Numminen, Pirkko; And Others
 TITLE Human Figure Drawing as a Representative Medium of Perceptual Motor Development among 3- to 5-Year-Old Children.
 PUB DATE Aug 96
 NOTE 11p.; Paper presented at the Biennial Meeting of the International Society for the Study of Behavioural Development (14th, Quebec City, Quebec, Canada, August 12-16, 1996).
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)
 EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS Age Differences; Child Development; *Childrens Art; Foreign Countries; *Freehand Drawing; Individual Development; Perceptual Motor Coordination; *Young Children
 IDENTIFIERS Human Figure Drawing

ABSTRACT

This study examined characteristics of human figures representing the self as drawn by 3-, 4-, and 5-year-olds and the presence of age or gender differences. A total of 150 children who were selected randomly from day care centers drew themselves on paper with crayons. There were equal numbers of boys and girls in each age group. Human figure drawings were analyzed on a 5-point scale using Saastamoinen's (1993) test battery. Results suggested that there were developmental changes and marked gender differences in the drawings. Over 40 percent of 3-year-old boys' drawing were not recognizable as human; all others had a circle for the head. Eyes appeared as large dots among 4-year-olds and as small dots or lines among 5-year-olds. A mouth appeared as a curved line in 3-year-olds, but was a curved line or "smiling" mouth in 4- and 5-year-olds. Almost all the children omitted ears in their figures. Only 16 percent of the 3-year-olds added a body to their figure; 95 percent of the older girls and 36 percent of the older boys did so. Arms were added to figures at 5 years, with girls more likely to add arms symmetrically and to add fingers. Girls added hair and clothing to their figures at a younger age than did boys. Contains 10 references. (KDFB)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED 400 095

U.S. DEPARTMENT OF EDUCATION
 Office of Educational Research and Improvement
 EDUCATIONAL RESOURCES INFORMATION
 CENTER (ERIC)
 This document has been reproduced as
 received from the person or organization
 originating it.
 Minor changes have been made to
 improve reproduction quality.

- Points of view or opinions stated in this
 document do not necessarily represent
 official OERI position or policy.

Human figure drawing as a representative medium of
 perceptual motor development
 among 3-to 5-year-old children

Pirkko Numminen, Nina Nevala, Minna Pennanen & Arja Säakslähti
 Department of Physical Education, University of Jyväskylä
 P.O.Box 35, 40351 Jyväskylä, FINLAND

Running head: Human figure drawing

PERMISSION TO REPRODUCE AND
 DISSEMINATE THIS MATERIAL
 HAS BEEN GRANTED BY

Pirkko
Numminen

TO THE EDUCATIONAL RESOURCES
 INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

024630
 ERIC
 Full Text Provided by ERIC

Human figure drawing as a representative medium of perceptual motor development among 3- to 5- year- old children

Running head: Human figure drawing

Abstract

Through drawing children express ideas that are meaningful and important to them. Thus children's human figure drawing may reflect the important role of her/his own body plays in a certain stage of child's perceptual motor development. Thus this study tries to ascertain: 1) What kind of human figure representing her-/himself is drawn by a child at a certain age (aged 3,4 or 5), and 2) Do these drawings display any age- and gender- related differences? The subjects (n=150) were asked to draw themselves on a drawing paper with crayon. Their human figure drawings were analyzed on a 1- to 5- scale using a test- battery developed by Saastamoinen (1993). Based on the results of this study, it seemed that the development of children's own human figure drawings developed according to age, but there were marked differences according to gender.

Based on developmental psychology the perceptual motor skills form the basis for children's affective, cognitive and motor development (Kephart, 1960). Most of the perceptual skills are affective since birth, but the sensory stimuli acquired, need to become specialized and integrated through physical (motor) experiences children meet in various environments (Cratty, 1970; Fröhlich, 1991). Through these experiences the acquired sensations become meaningful (Ayres, 1979).

Through drawing children express ideas that are important and meaningful to them. Thus the most frequently drawn idea in 3-5-year-old children's drawings is the figure of her-/himself. The most important part(s) of this figure is/are drawn large "tadpole" (Brittain & Chien, 1983), and the less important smaller (the eyes, the arms) or totally omitted (the body) (Di Leo, 1970; 1983). Boys draw "tadpole" six months longer than girls (Willsdon, 1977). Girls also add hair and clothes to their drawings more often than boys (Mortensen, 1984). Thus 3-5-year-old children's human figure drawing may reflect the important role of her/his body plays in a certain stage of her/his perceptual development. Through this "physical body image" a child develops understanding of the relationships in her-/himself and of her-/himself and other objects in environment. Thus this study tries to ascertain: 1) What kind of her-/his own human figure is drawn by a child at a certain age (3-, 4- and 5- years), and 2) Are there any differences in these drawings according to age and gender?

[h1]Methods

Hundred and fifty (n=150) 3-5-year-old children chosen with a random sampling from different daycare centers were asked to draw her/his own figure on a drawing paper (size A4) with a crayon. Drawing occurred in the beginning of an appropriate activity session. The human figure drawings were analyzed in 1-5-point scale with a test battery developed by Saastamoinen (1993). The mean for interobserver percentage being 97,8%. For the analysis the subjects were divided according to age into three groups (3-,4- and 5-years) so, that girls and boys were equally (n=25) presented in each group.

Conventional statistical methods were employed to describe the qualitative data in percentages (%) and chi-square-test was used to determine gender and age differences.

[h1]Results

The results of this study support the results of the earlier studies (Di Leo, 1970, 1983; Willson, 1977; Brittain & Chien, 1983). Human figure drawing developed in line with age. 43% of the three-year-old boys' figures were not recognizable for human, while all the others had a circle for head. Eyes appeared in figures as large dots among the four-year-olds (girls 37 % and boys 18 %). At the age of five children drew the eyes either as small dots or lines in their figures (37 % of the girls and 44% of the boys). 22% of the three-year-olds and 35% of the four-year-olds drew a nose in their figure. More than half (58%) of the five-year-olds also drew a nose. A mouth appeared as a curved line in children's drawings at the age of three (girls 31% and boys 20%). At the age of four

67% of the girls and 40% of the boys drew a curved line or "smiling" mouth. Most of the girls (78%) drew a "smiling" mouth and of the boys (68%) drew a curved or "smiling" mouth in their figures. 92% of the 3-5- year-old children omit ears in their figures.

16% of the three-year-olds added a body to their figure. 95% of the four and five years old girls and only 36% of the boys added the body in their figure. The shape of the body among the five-year-old girls was either triangle or had two different parts, but among the boys it was an open or closed square.

Arms were added to the figure at the age of five (88% of the girls and 64% of the boys). Simultaneously 72% of the girls and 40% of the boys added the arms to the body symmetrically. The girls (48%) also added fingers to the arms. 27% of the three-year-olds added legs to their figure, the percentages for the five-year-olds being 72% and 84%, respectively. Hair was added to the figure at the age of three (girls 26% and boys 18%), and at the age of five the percentages were 86% for the girls and 64% for the boys. Four-year-old girls (38%) added clothing to the figure, and clothing appeared also among the five-year-old boys (20%). Gender differences were found in the figures of the four-and five-year-old girls (28% and 44%) and of the five-year-old boys (12%).
(Figure 1.)

Figure 1. here

[h1]Conclusion

It seemed, that children's human figure drawing developed according to age. Their perception of their own physical form evolved from a holistic understanding into a more detailed and sophisticated conception. The three-year-olds presented themselves as an open or closed circle with large eyes and legs as a "tadpole". The form of the head, the eyes, and the legs developed according to age. It might be, that children perceive and draw easier the body parts that are seen or used more frequently and have meaning in their daily activities. Surprisingly the children of all ages wanted to express themselves smiling!

In the "tadpole" a perception of the body appeared earlier among the girls than the boys. Because of this, the shapes of the body drawn by the girls were more mature than in drawings by the boys. Possibly the games girls play with arms and legs help them to pay attention to the body even at this early age.

The children recognized the symmetry of body parts when they added the arms to the body at the age of five. This might reflect the development of laterality. Children were now able to perform symmetric and gradually also lateral movements.

Gender differences were observable in relation to hair and clothing, the girls adding these to their figures earlier than the boys. Based on these gender differences the figures of the girls were recognized as "girls" much earlier than those of the boys as "boys". These differences might stem from the quality dolls that have hair and clothing.

It is up to the parents and pre-school teachers to provide children with equal opportunities for the development of perceptual motor skills- the basis for further learning.

[h1]References

Ayres, A. J. (1979) . Sensory integration and the child. Los Angeles: Western Psychological Services.

Brittain, W. L. & Chien, Y. C. (1983) . Relationships between preschool children's ability to name bodyparts and their ability to construct a man. Perceptual and Motor Skills, 57, 19-24.

Cratty, B. J. (1970) . Perceptual and motor development in infants and children. London: MacMillan.

Fröhlich, A. (1991) . Basale stimulation. Düsseldorf: Selbst-bestimmtes Leben.

Kephart, N. C. (1960) . The slow learner in classroom. Columbus: Charles E.Merrill.

Di Leo, J. H. (1970) . Young children and their drawings. New York: M.D.Brunner.

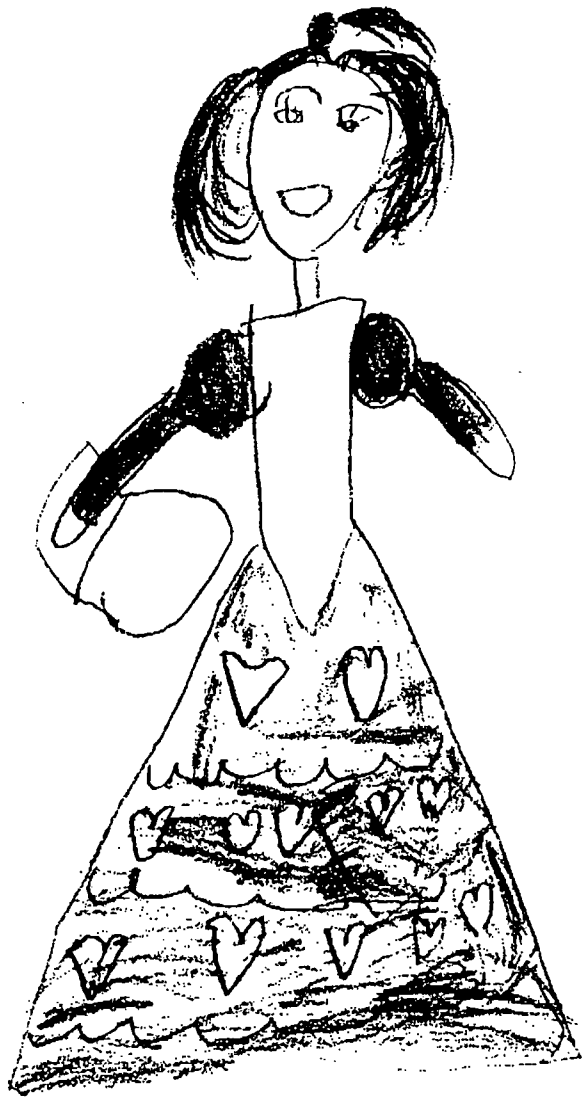
Di Leo, J. H. (1983) . Interpreting children's drawings. New York: M.D.Brunner.

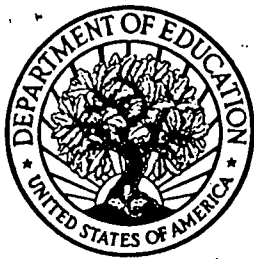
Mortensen, K. V. (1984) . Children's human figure drawings. Vol. 1-2. Slangerup: Dansk Psykologisk Forlag.

Saastamoinen, N. (1993). 5-vuotiaiden ihmispirrosten representaatio ja ekspressiivisyys. [Representation and expression of 5-year-old children's human figure drawings] Jyväskylä, Finland: University of Jyväskylä, Department of Psychology.

Willssdon, J. A. (1977) . Discussion of some sex differences in a study of human figure drawings by children aged four-and-a-half to seven-and-a-half years. In G. Butterworth (Ed.), The child's representation of the world. New York: Plenum.

Figure 1. Me- a lady. 5-year-old girl.





REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Human figure drawing as a representative medium of perceptual motor development among 3-to 5-year-old children
Author(s): Pirkko Numminen, Nina Nevala, Minna Pennanen & Arja Sääkslahti
Corporate Source: Department of Physical Education, University of Jyväskylä, Finland
Publication Date:

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

The sample sticker shown below will be affixed to all Level 2 documents



Check here For Level 1 Release: Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) and paper copy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1



Check here For Level 2 Release: Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but not in paper copy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic/optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holder.

Sign here please

Signature: Pirkko Numminen
Printed Name/Position/Title: Pirkko Numminen, Ass. Professor
Organization/Address: University of Jyväskylä, Department of Physical Education, P.O. Box 35, 40351 Jyväskylä, Finland
Telephone: 358-04-602119
FAX: 358-04-602101
E-Mail Address: numminen@pallo.jyu.fi
Date: August 29, 1996

024630
ERIC
Full Text Provided by ERIC

August 16, 1996

Dear Colleague:

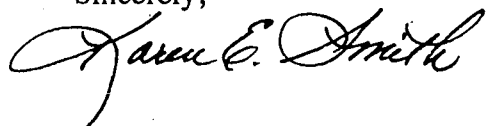
The ERIC Clearinghouse on Elementary and Early Childhood Education is increasing its efforts to collect and disseminate information relating to all aspects of children's development, care, and education. Your presentation at the **XIVth Biennial Meetings of the International Society for the Study of Behavioural Development** held in Quebec City, Quebec, on August 12-16, 1996, is eligible to be considered for inclusion in the ERIC database and microfiche collection, **IF:**

- * it is at least 8 pages long;
- * it has not been published elsewhere; and,
- * you will give us your permission to include it in ERIC.

ERIC, the world's largest database on education, is built from the contributions of its users. We hope you will consider submitting to ERIC/EECE your presentation or any other papers you may have completed within the last two years related to this educational level.

Documents are reviewed for contribution to education, timeliness, relevance, methodology, and reproduction quality. We will let you know within six weeks if your paper has been accepted. Please complete the reproduction release on the back of this letter and return it to ERIC/EECE with your paper by July 31, 1997. If you have any questions, please contact me by fax 217-333-3767, or by e-mail <ksmith5@uiuc.edu>.

Sincerely,



Karen E. Smith
Acquisitions Coordinator