

# REVIEW OF RESEARCH DESIGNS USING DIGITAL IMAGES TO UNDERSTAND CHILDREN'S EXPERIENCE AND ENVIRONMENT

by  
*Vera Gregoryevna Azarova, M. A., Graduate Assistant*  
*College of Education*  
*Minnesota State University, Mankato, Minnesota*  
and  
*Elizabeth J. Sandell, Ph. D., Assistant Professor*  
*College of Education*  
*Minnesota State University, Mankato, Minnesota*

## Abstract

Researchers are investigating methods of data collection that do not intrude or invade children's lives in order to understanding their cognitive and social development. This article summarizes results of five studies which used combinations of digital photographs and interviews with children in order to understand various situations in the children's lives. The authors conclude that collecting data with photographs, especially when used by the children themselves, results in a rich body of data and information.

## Краткий обзор

Исследователи находятся в поиске методов сбора данных, которые не нарушают и не вторгаются в детскую жизнь с целью изучения их когнитивного и социального развития. Эта статья включает обзор пяти исследований, которые используют комбинацию детских фотографий и интервью, проведенными с детьми, с целью понимания различных аспектов их жизни. Авторы пришли к выводу, что сбор данных при помощи фотографий сделанных детьми является неисчерпаемым источником информации о жизни детей.

## Introduction

This literature review is about the use of children's digital images in order to understand their experience and environment. This paper includes review and summary of five articles about research on children's use of photography to explain and understand their environment.

This topic is important because digital images of the environment taken by children give them opportunities for better understanding of the environment inside and outside of the classroom. Research reviewed for this article lead the authors to conclude that photographs make children enthusiastic to learn about the environment, think about important people around them, and express their feelings. Photographs help to build children's self-esteem, because children become more confident to talk about objects they photographed, instead of objects they simply see. Photos promote a sense of security and belonging for children in their classroom.

Digital images are beneficial for teachers in many ways. They help to understand what is important for children, to monitor the children's progress and growth, to enhance children's language ability, to promote literacy, to build bridges of communication with children, and to promote positive classroom management. Using pictures in educational process can help teacher to plan curriculum, to diversify the activities, and to communicate with staff.

The children-parent relationship can be profitable as well because pictures promote communication with parents, show the children's progress of work and help children to explain how their daily activities look.

## Use of Photographs with Chronically Ill Children

Close (2007) conducted qualitative research that included 12 chronically ill children, between 2 and 19 years old. The purpose of the research was to show photography as a method that would provide insight into children's understandings of the world around them.

The procedure consisted of five steps (Close, 2007). First, the children were interviewed and instructed in use of the disposable cameras. Then, children received disposable cameras to take home. The researcher asked the children to take many pictures of important objects in their lives which they would like to talk about at the next interview. After two weeks, the researcher developed the pictures. The researcher asked each child to select one picture to talk about at the second interview. And then the researcher interviewed each child a second time to learn their ideas about what was important in their environments.

Using a grounded theory approach, Close analyzed the photographs and the interview conversations. With a macroanalysis, she compared and grouped the data into four categories: special events, ordinary places, individuals that were special to the child, and picture of the child. The children's discussions of the pictures revealed their feelings of loneliness and isolation. The pictures gave children a way to talk about their feelings as chronically ill people. At the same time, the researcher reported that photography was a useful communication method that brought new understanding into the research process (Close, 2007).

## **Use of Photos to Understand Children's Decision-Making**

Einarsdottir (2005) conducted qualitative research in Reykjavik, Iceland in an early childhood program for children from four to six years old. The investigator wanted to learn how children evaluate their early childhood settings and to find methods for understanding children's perspectives.

The study used children's photographs and interviews as data. Thirty-four children were divided into two groups. A group of 22 children received digital cameras and were invited to give a tour around the school and to take pictures of things, which they showed to the researcher. The second group included 12 children who were given disposable cameras and allowed to work independent of any adult interference. Children in this second group were allowed to take pictures of things that they thought were important to them. After the teachers printed all the pictures, they interviewed children individually to learn about the objects and people in the photos and about the reasons for the photos. All interviews were recorded on tape and analyzed afterwards.

The results of the research (Einarsdottir, 2005) showed that these two approaches resulted in many differences in children's preferences. The children who used digital cameras showed the guests the early childhood environment and took pictures of things they thought would be interesting for guests. The children who used disposable cameras without adult presence took pictures according to their own choices. Some of these photos were of things that were actually defined as "off limits" or "private places" to which children were not supposed to go (such as pictures of each other's behinds).

Einarsdottir (2005) concluded, "In this study, we found that the pictures by themselves, without the children's explanations, only told the researchers the partial story. The interviews in which the children discussed and explained the pictures were of vital importance." The researcher also concluded that the use of cameras is a child-friendly method for data collection.

## **Use of Photographs to Understand Playground Relationships**

Newman, Woodcock, and Dunham (2006) used case studies for qualitative research about children's attitudes toward school and the importance of playground relationships in children's understandings of gender. The data for the case studies were collected in one school in the Midlands of England. The data collection used photographs and interviews to give children the opportunity to tell stories about school experiences. The researchers collected data from one class of 10- and 11-year-old children.

The project started with a conversation about the nature of photographs and their representation of reality. Photographs were shown to children in order to discuss what the pictures illustrated and might represent. Then, children created captions for each image. Next, the children received digital cameras and took pictures of the school places which were important to them. Children created a caption and short story for each image.

The researchers analyzed the individual interviews about the images, their captions, and the reasons for taking them. The data revealed gender differences in the selection and understanding of subjects for the pictures. The investigators concluded that photographs represented the important aspects of the "self" that children wanted to build and encouraged self-expression about that "self" (Newman, Woodcock, & Dunham, 2006). Researchers suggested that there are important differences in playground roles (bullies, popular children, courage, powerless victims, etc.). Evidently, many of the adults were not aware of these differences; they believed that children were happy and well-adjusted when, instead, there were children who felt harassed and victimized.

## **Use of Photographs to Understand Children's Knowledge of Natural Objects**

This mixed methods research (quantitative and qualitative) (Tompkins & Tunnicliffe, 2007). was conducted in state-sponsored early childhood schools in Great Britain. The purpose of the research was to study children's understanding and interpretation of natural objects, to identify the source of children's knowledge, and to show the importance of having diversity of natural objects as a part of a classroom environment (Tompkins & Tunnicliffe, 2007).

The sample included 92 children from 3 public schools. Half (46) of the children were 5 to 6 years old; the other half were 9 to 10 years old. Each group included 23 boys and 23 girls. The procedure consisted of six steps: (a) researchers put 13 natural objects on a small table in the classroom; (b) the researchers introduced the objects (without names) to children; (c) the researchers interviewed the children about what they knew about the objects; (d) the researchers asked children to choose 3 objects to explain and 3 other objects to photograph; (e) the children were interviewed to find out the reasons for their choices; and (f) the researchers analyzed the children's answers. In the quantitative research, the independent variables were the children's age and gender, and the dependent variables were the children's answers and pictures.

Ninety-two percent of the children's responses showed that home-based sources of knowledge were more common than school-based sources. The majority of children selected at least one object to photograph that was different than those selected to talk about. The results of the interviews showed that children preferred objects that were somehow recognizable to them, that caused strong feelings, and/or that were eye-catching by color, shape, or texture. The authors concluded that teachers should have a variety of objects

and organisms in the school settings to broaden the children's knowledge about natural environment in order to fulfill the academic standards (Tompkins & Tunncliffe, 2007).

### Use of Photographs to Share Children's Experiences with Families

DeMarie and Ethridge (2006) described their qualitative research conducted in Muskingum College Center for Child Development in New Concord, Ohio. The purpose of the study was to show how much families can learn and talk about children's preschool life using photography.

The procedure of the study consisted of four steps: (a) the teacher taught a lesson on how to use a camera to take pictures; (b) the researcher interviewed children to describe the preschool without pictures; (c) the children took photographs; and (d) the researcher interviewed children a second time to describe each of their photographs. In the research project, there were 28 children 3 to 5 years old. The article provided three children's interviews about photography with detailed analysis.

The authors concluded that children gave more details and richer details about their preschool life when they could use photography. For example, one child gave explanations of his pictures that were more than 4 pages long. With photographs, he told his family in details about preschool activities during the day, about his friends, and about his teachers, but he was not able to do this without pictures. DeMarie and Ethridge (2006) said: "The photographs enhanced the children's descriptions of their activities and provided a medium for families to view preschool thought the child's eyes" (p. 101).

### Conclusions

Researchers are investigating methods of data collection that do not intrude or invade children's lives in order to understanding their cognitive and social development. All five articles demonstrated the value digital images add to data collection methodology and to understanding children's attitudes and feelings about their environment.

There are some similarities that characterize all the articles: the qualitative research method, using digital or disposable cameras in the research process, and using individual interviews or stories as data sources. All reviewed articles were valuable because they showed the importance of the photography in expanding children's ability to talk about important people and the environment. The authors conclude that collecting data by making photographs, especially when used by the children themselves, results in a rich body of data and information.

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