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
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How do children perceive the activity of drawing? Some initial observations of children in an infant school

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Abstract

The work described is the initial phase of a project, investigating the development of children's skills and understanding in drawing and modelling for design thinking. The focus at this stage is on approaches used by children when drawing freely. Children in an infant school, were observed on a one-to-one basis while engaged on a drawing activity. Their talk during the activity was recorded and analysed. Preliminary indications suggest that young children approach the task of drawing in different ways. Whether these differences represent an individual style, or are task- or situation-dependent is a question for the next phase of research. A surprising observation was the extent to which children in the sample were pre-occupied with aspects of task management. Further study will establish for how long in a child's development this persists. Until the child feels confident in the mastery of the task, s/he is unlikely to be able to concentrate on wider aspects of design thinking.

Children's drawing has been recognised for a long time as a fruitful area for research into children's thinking. There is a wealth of evidence available, and it is relatively easy to generate new data, given the readiness with which children engage in the act of drawing. However, although there has been extensive study of children's drawing, the focus of research has been largely on analysis from varying perspectives of the product (what is drawn) and on the mechanical and perceptual aspects of production. Attitudes to drawing as an activity have been studied relatively little, and in relation to designing hardly at all.

Informal observations gathered over a number of years suggested to me that young children might be thinking about drawing in a number of different ways, although the products might appear to be very similar. In particular, I had become very interested in the way in which some children I had worked with used drawing as a vehicle for storytelling. In several cases it had seemed to me that the drawing and the story-telling were in a sense interactive, so that the drawing did not simply illustrate the storytelling, but was integral to it. The similarity between this interaction of hand, eye and brain and the interaction observable in the best designing activity struck

me forcibly. I was concerned to find out whether all children engaged in this, or whether there are distinct styles and approaches identifiable. Gardner¹ identifies two groups of child artists, whom he terms 'dramatists' and 'patterners'. My informal observations suggested that there might be other groups, and that not all children habitually use drawing for dramatic narrative. Kellogg², by comparison, suggests with some vehemence that the act of drawing, the production of a shaping through marks on a surface, is sufficient for young children as an act in itself, and argues that adults and educators should accept it as such. She quotes one five-year old as saying firmly, "This is not a story. This is a picture for looking at". However, Ella, one of my nearly five year olds subjects, says in her commentary during one of her drawings, "I know he hasn't got... (*a skateboard*)... really; it's just in the story", indicating clearly that there is more to this drawing than simply shaping or depicting the world. If this observation is borne out by more structured research, then we might well find that certain approaches or intentions while drawing would lead more naturally into design modelling than others. In order to understand how children develop the use of drawing as a mode of thinking, it seemed relevant to start

the observations with children drawing freely, without any constraints imposed from the adult. What concerns pre-occupy them during this activity?

This paper describes observations made during a period of six months. The observations were made in two phases. The setting is an infant school in a mixed catchment area. The school is housed in a modern open-plan building, and at the time the first observations were undertaken was in the process of having additional classrooms built on to the school. The work areas used for the first phase of observations were either the Technology area (where equipment and materials are stored, and which is also used for small group work such as cooking), and the room assigned to the Deputy Head as her office. Both these areas are in the upper part of the school, adjacent to parts of teaching bases, and the former is at the end of a gallery which overlooks the central hall of the school. In the second phase, a room currently allocated for small group work, or parent meetings, was used.

Initial observations

Five visits were made to the school during a period of three weeks. Twenty three children were observed. The ages of the children range between 4 years and 10 months and 5 years and 11 months. All entered the school as "rising fives", i.e. in the academic year in which they would attain their fifth birthday. For most of the year they have been engaged on pre- National Curriculum activities. All were members of the same reception class, having entered the school during the current academic year. All children were volunteers, and all drew with relative fluency. That is to say, they had no difficulty in manipulating the pens or crayons they chose (*with the exception of some brushpens with which one or two experimented*) and were achieving the outlines and shapes of their intention with ease. Three children in the class who showed no interest in participating were not observed in this preliminary investigation.

The children were taken individually from their classroom to a space where they could work relatively undisturbed, with only the

observer present. The school being open plan, on most occasions children were aware of other activities happening around them. This is, however, normal for their experience of school, and although a small number paid attention to other things going on around them, they were a minority. It is probable that these individuals customarily pay attention to a large number of different stimuli. Some made second visits approximately two weeks after the initial observations. The length of the observation was in every case determined by the child. The observation terminated when the child announced or otherwise indicated that they wished to stop. Some made a single, sparse drawing others made more than one drawing during a session. Some offered little commentary, others talked at length both about their drawings and about other things, and this again was left in their control. The observer tried where possible to avoid being drawn into dialogue; however, this was not always possible, and again, the child was allowed to control this. The whole of each session was recorded both manually and using a portable tape recorder, and all material thus derived has been transcribed without editing.

In each case, for the first drawing on the first visit, the task was presented as follows: A small toy figure was introduced as "a person who has come to see you" The child was then asked to name the figure, but was not pressed to do so if they did not respond to this. The child was then asked to draw something "for the person (*name*)" with the suggestion that it might be something that the person might need. Again, this point was not pressed if the child did not respond to the suggestion. Subsequent drawings, or drawings on subsequent visits were allowed to start spontaneously.

The observer: Throughout, dialogue initiated by the observer was confined to questions clarifying the intent of the drawings. If a child was very slow to start drawing, the observer asked: "What do you think you might draw for xxxx?", and if this was unproductive "What do you think xxxx would like you to draw?" Where a child drew without any initial talk, this was allowed to continue for several

minutes, and then the prompt “Tell me about your drawing” was used. Additional questions were used where answers were monosyllabic or contained very limited information. Such additional questions tended to invite storytelling, such as “What are these people doing in your picture?”. Not all children responded to this. Where children talked spontaneously as they drew, any questions used were reflective, i.e. asking for confirmation or clarification of information already given.

Each observation consists of a verbatim account of all utterances by both the child and the observer, and notes indicating the progress of the drawing as the child made it.

During the second phase, a group of children with a younger average age was selected. These were new entrants to the school, having started school in September, and ages ranged from 4 years and 6 months to 5 years and 2 months. These observations were carried out during five visits in October and November. The same procedure was adopted.

Analysis

For the purposes of analysis, these observations have been treated as a single group, since the overlap in chronological ages is so great. A few children were observed more than once, and the data from second pictures or second visits has been included. Fifty-five separate observations have been analysed. However, the Autumn group had spent a much shorter time in school (less than one term in most cases) whereas the summer group had been in full-time school for at least a term and a half.

The transcripts of children’s verbalisations during the act of drawing were broken into a number of distinct utterances. An utterance was deemed complete when the subject was changed, or when there was a long pause between one statement and the next. These were then mapped on a spreadsheet in categories identified through the data. Thus one category was narrative, telling a distinct story; another was identifying elements in a drawing (as “this is my mum”; “this is her nose”), another was discussing the content

(e.g. “but sometimes (*my mum*) gets mad at me”).

A difficulty in analysis has been the variation in children’s readiness to talk unprompted, and willingness to respond to prompts. The variation in number of utterances is very wide, ranging from 4 to 118. Children who spoke very little tended to speak only in response to prompting, whereas others talked freely and readily. It is interesting to note that within this age-range, readiness to talk to the observer does not seem to be age-dependent. In spite of this variation in extent of speech, however, some conclusions may be drawn.

In this study, very few children seemed to be primarily concerned with “patterning”, in Gardner’s sense. This may well be in part attributable to the way in which the activity was introduced, although this needs further investigation. There is a sharp contrast, however, between those who produced mainly narrative drawings and those who produced mainly pictorial/illustrative drawings. The former tell clear stories, some being very rich in detail, including elements not currently in the drawing (although they may decide to include these elements after talking about them) while the latter are mainly concerned with depicting part of their known world. Fifteen children in the sample, although on the whole not those who talk the most freely in this situation, produced about equal numbers of utterances in these two categories.

Thus, preliminary indications from this analysis do indeed suggest that young children approach the task of drawing in quite different ways. Whether these differences represent a preferred style for an individual, or are task- or situation-dependent is a question for the next phase of the research.

Implications for teaching of Design and Technology

Many support/advisory teachers (Anning³, Constable⁴, Samuel⁵) report difficulties encountered by teachers throughout the primary age range in trying to encourage pupils to draw designs in advance of making products. “They can never make what they

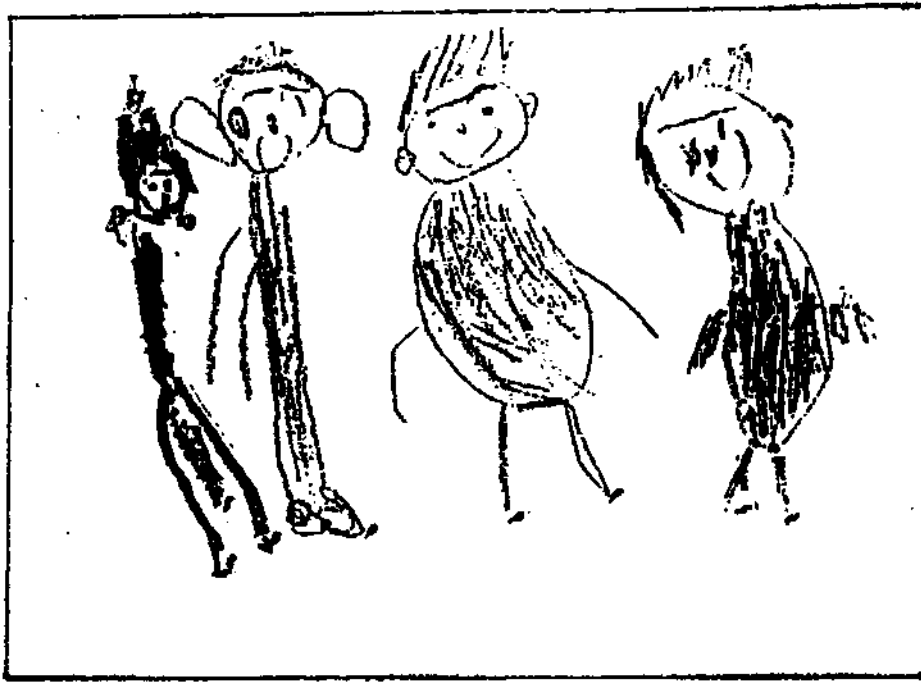
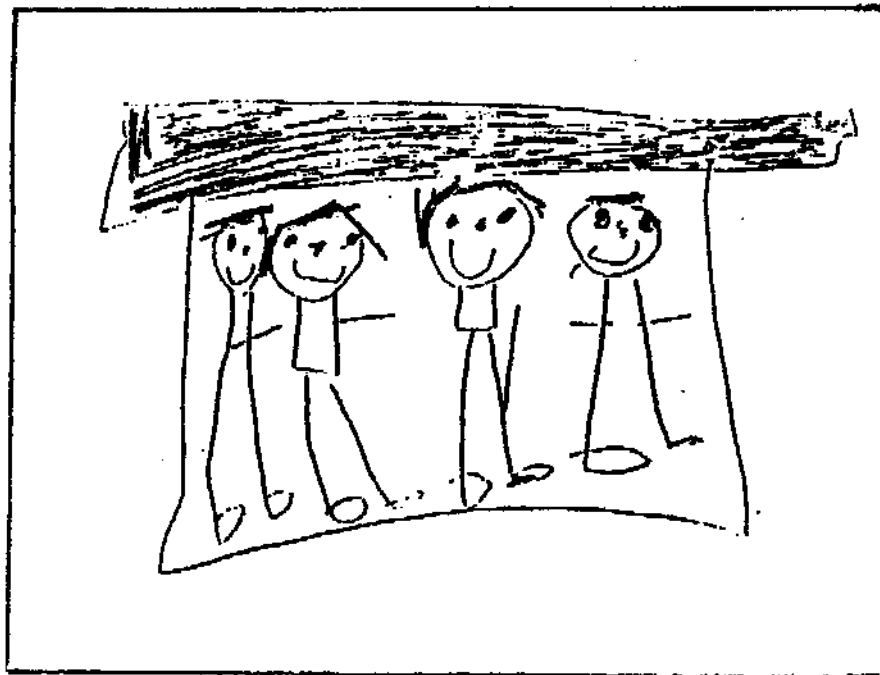


Fig 1. These two drawings appear very similar. However, Christopher's (above) is developed with a wealth of storytelling, while Amy (below) has drawn a picture of her family



draw” is a common worry. DATA⁶ in producing support material for the new National Curriculum Orders recognise the need to use drawing more appropriately in the design activity of young children (e.g. in drawing what they have made, rather than drawing in advance of making).

In attempting to encourage children’s drawing for designing, I would suggest that we have predominantly been concerned with the pictorial aspect, through developing accurate observational drawing. Design drawing, however, is drawing to explain rather than to depict, and as such has more links with the narrative aspects identified here. It is possible that concentrating on the pictorial reinforces the concept of the drawing as an end in itself, unrelated to the subsequent task of making. There is an obvious need to clarify this through further research.

One aspect of the observations which has some bearing on the approaches used by teachers of children in the early years of schooling, and one which surprised me, was the extent to which children in the sample were pre-occupied with aspects of task management; managing their use of the media (“...now I need some blue...” , “...yellow for her nose...”,) or managing the task of drawing itself, (mnemonics as they drew figures; thus “an arm, an arm, a hand”... or “...now I have to put feet...”) even though all drew with relative fluency (see above). Thirty-nine of the fifty-five observations revealed some level of pre-occupation with task-management, and in twenty cases the greatest number of utterances is concerned with this. Further study will be needed to establish for how long

in a child’s development this pre-occupation persists. It could well be argued that until the child feels confident in the mastery of the management tasks, s/he is unlikely to be able to concentrate on wider aspects of design thinking.

Thanks are due to the staff of Stoke Park Infants School, for their permission to carry out this work in their school and their co-operation in allowing pupils to participate.

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