

WHY ARE CHILDREN'S QUESTIONS RARE IN CHILD INSTITUTIONS?

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Children's questions as their own initiatives in dialogues with adults has been studied in four child-organizations, the welfare clinic, the day care centre, the school and the library. The data was collected principally with videotapes, observations and interviews. The historical development and the differences in rules and regulations has been compared in the four institutions. The theoretical and empirical analysis of the 21 cases is grounded on theories of cooperative learning based on the tradition found by Lew Vygotski and Jerome Bruner. In this article are some results of the analysis of different kind of reactions of the professionals to children's questions presented. In some situations the children are able to ask questions, in other not. The scripts the adults use in their communication with children develop the worlds of dialogues in which it neither is possible for the child to express his or her question or not.

Although it is presuming that the questions posed by children are of utmost importance to them for discovering the sources of knowledge, for combining personal experience and information from other and for learning thoroughly how to comprehend things, the children have seldom real possibilities to express their own questions.

I am trying to understand the lack of children's questions in institutions primary as a phenomenon connected to the meanings in interaction. Many of the individual characteristics which are traditionally seen as important in child developmental and educational research, such as age, gender, social class and ability structure, here remain secondary.

Earlier studies have shown that, as in other institutional discussions (Drew et al. 1992), the questions of child-clients are also disregarded because the professional interactive practices, which concern posing questions and work performance, take place on the initiative of the professional. Our former research focused on the relationship between the concept of knowledge in question-based teacher-led teaching and that of child-centred, child research-based group learning (Karlsson & Riihelä 1991, Riihelä 1989, 1991, 1993). But the question, why children's own question disappear in child-institutions was in that time still difficult to resolve.

CHILDREN'S QUESTIONS HAVE BEEN TREATED DIFFERENTLY COMPARED TO ADULTS'

Earlier studies have concentrated on the significance of adult questioning strategy on the progress of children's learning processes. Children's questions as a function of the development of thinking skills has also been in focus of many studies. The developmental stages in the form and content of children's questions has also been an

issue as well as their relationship to the stages of learning. The third main area of attention has been on the development of question classification strategies (Kearsley 1976).

Questions have been studied and examined as the achievement of a certain intellectual level, as indicators of creativity, as the progressing control of linguistic forms, and comparisons have been made between questions of different age groups, different social classes and different situations. To some extent children's questions have been studied as a linguistic unit of discussion, forming an adjacency pair with the response (Huuskonen 1992).

There is a wide research tradition around the questions children make starting already in late 1800 and continuing with the investigations by Piaget (1952). Freese (1992) among others has shown that among the first questions asked by children there are many that concern basic problems about life and the world, including complex thoughts about what is right and what is wrong.

Tizzard et al. (1983) studied children's questions occurring in conversations between different generations in a variety of circumstances. One interesting result, from the point of view of this research, was that children at home ask ten times more questions than they do at school and that the parent at home answers children's questions more frequently than adults in a work environment. Bertrand's research (1991 p. 120) clarifies, among other things, children's questioning behaviour and adults' responses in museums. One of the more significant findings was the adults' unwillingness to answer children's questions.

Research has also shown the influence of receiving answers on learning and on the development of questions (Pollock 1924, Ross & Balzer 1975, Ross & Killey 1977, Pressley & Bryant 1982, Pierce 1990). Related to this area is research into children's problem-solving strategies (Bruner & Haste 1987). But children's questions as a set of problems formed by the chain of questions and answers seen as a joint activity has not yet been studied. Questions and answers have been treated separately from each other as well as from the related activity.

Children's questions have rarely been approached in the same way as adults'. The child's question as a natural source for the expression of curiosity has been ignored. It is not expected of children that their questioning would express a certain petition to their discussion partner and that every question, regardless of its form or content, would be of importance to the questioner (even if it is a child) and would demonstrate active participation in an interactive situation.

The formation of institutional question-response chains has not previously been related to the importance of different levels of collaborative activity. Working with children (and often also with adults) is rarely seen as a joint or collaborative activity between professional and client. However, when in child research the child's actions is related to his or her age and intelligence quotient, the child's position as the subject of his own actions is often underestimated. In comparable adult research, age and intelligence are usually irrelevant. Children are not seen as responsible for their own questions in the

same way as adults. It is thought that children's questions are more dependent on age and learning ability rather than on a personal quest for knowledge or a wish to participate in the conversation.

GIVING ATTENTION TO CHILDREN'S QUESTIONS IN COLLABORATION

What kind of position should adults give to children during instruction and education so that their willingness to make questions proceeds instead of being stifled? I will briefly examine the question from two points of view, the background being the ideas of Piaget and Vygotski. Both perceive the child as responsible for the construction of his or her own world (Piaget 1932/1988, Vygotski 1931/1982). Nevertheless the original premises differ from each other. According to Piaget, learning is individual - "I" comes first. For Vygotski learning is essentially social - "we" come first. The former viewpoint means in practical terms that the growing person has to be socialised. The latter viewpoint leads us to the conclusion that socialisation is not necessary for the growing person because at the basis of learning is an inborn capacity for cooperation.

Both ways of thinking see children as active participants in the construction of the world but the relationship between individual and communal is seen differently. In the Vygotski way one could think that the social group encourages its members to act according to the manner of the group whereas, for Piaget, the individual person, the growing child, operates according to the current stage of development. Certainly the social environment also has an influence but it is not as crucial as the limitations set by the developmental stage.

The matter can be made more concrete by considering the apparent underlying reasoning behind children's questions. When studying the cause and effect relationships in natural phenomena, the small child reflects on new matters whilst simultaneously listening to the meanings of language and words. The child seeks to reconcile them to both natural phenomena and to human interaction and play with words. When studying the stages in the growth of a tree in the coming spring (one case in this research, Riihelä 1996), the children survey, with help of metaphor, the way that people conceptualise cause and effect relationships. The conceptualisation process includes logical thought, familiarity with the relevant laws of nature, the stages in the historical shaping of knowledge, the underlying myths and the imagined reality and, finally, play and humour as the salt of interaction. I will take one example from the data to show the numerous possibilities in the levels of thought at which the child's mind may be moving.

During the study of leaves the teacher in kindergarten talks about mouse ears. The child asks for clarification: "Mouse holes?". I interpret the child's question as trying to resolve whether the adult is using concepts in her speech which describe natural phenomena (such as mouse hole = nest) or whether she is using human concepts of nature (small spring leaves are commonly known as mouse ears). A little later in the same discussion the child describes the signs of leaves on the tree in the autumn by saying that the tree has eyes. The teacher clarifies: "Buds?" (= "do you actually mean the word bud instead of eye?"). (In Finnish the word are similar, bud = silmu, eye = silmä). With this question the adult is giving the message that the child had used the wrong word and the child, slightly annoyed, responds with the complicated remark:

"The tree wakes up out of your glasses." This example made me think that the child had possibly come to the following conclusion: If we can call a small leaf a mouse ear then why could we not call the autumnal sign of the leaf an eye or glasses since they are looking, the whole winter through, for when the spring will break. (There is an abundance of similar examples, see for example, Tjukovski 1975.)

MAKING SCRIPTS ALONE OR TOGETHER

In order to get a deeper understanding of the processes that inhibit or improve children's possibilities to ask their own questions I have used the concept of script as it has been described by Nelson (1986 p. 17). I am nevertheless well aware of the problems caused by the overuse of theatrical metaphors which Billig amongst others has analyzed (1987 pp. 10-13), for example, the allusion to a static performance and its expectations. I perceive Nelson's use of the concept of script as a way of attaining some of the many levels of cooperation.

On setting out on an encounter with other people, each of us carries conscious and unconscious expectations of the coming situation. Expectations and predictions affect both our own behaviour as well as that of the others in the same encounter. During the encounter, one participant may observe the other's script whereas another may be so intent on his or her own purposes that they fail to recognise the other person's expectations. The daily encounters of one generation naturally includes a lot of script clarification, for example, in the form of small talk. The encounter can then proceed either according to the script of just one of the participants or with both sides exchanging ideas about their own scripts and interpreting that of the other. The intention of this exchange of ideas is to create the elements of a joint script which is satisfactory to both in the given situation. In this sense I see the concept of script as a useful tool for analyzing the elements of cooperation whether it concerns legal texts or confidential dialogues.

When the context of the question changes, so do the meanings. Independent of age amongst other things, a person adapts his or her own behaviour to suit the demands of the situation. In the adult-made educational and teaching models of children's social habits, these matters remain unnoticed. I start with the assumption that the child's action is affected more by the situation itself and by what happens therein, rather than by personal characteristics that may be measurable. In an excellent way Nelson (1986 pp. 231-241) has described how, in new situations, children concentrate first on clarifying for themselves the expectations and demands of the other participants. Only when these are understood do the children start to give their own active input even in studying circumstances.

Giving meanings to a relationship between two or more persons is the generalization of thought that I have carried from micro to macro level in the research material, as the nucleus of the problem, the core. It is thus a question of both the way the actors think, the meanings they convey and the social construction. Thinking in words gives rise to meanings and through these meanings the cooperation is created which, further, has an effect on thinking and on the subject under discussion. With the help of the question-response chains in the interaction we can go into the scripts and these may be modified

and developed through argumentation. The prerequisite for the creation of communication is a certain system of devices. The successful analysis of this system is dependent on what factors are chosen to describe the communication. Frequently the kind of elements that are chosen are those that have lost their interactive properties. I have concentrated on units in which the properties of the communication factors remain undivided. In institutional practices communication is traditionally dominated by the professional ambitions of adults. If these are examined as individual acts, attention is drawn towards periods of action. Often these periods consist of tasks which are given by adults, performed by children whose performances are then evaluated by the adults. The adult operates as a subject who evaluates the target of his or her work, which is the child, the object. The splitting up of interaction into elements separates the action from the actors, the social pattern and the meanings given to the communication by each party.

However, choosing the giving of meanings as the unit of analysis opens up a way of solving the problems of encounters between children and adults as subjects. To quote Vygotski=s (1982 p. 19) formulation, at the core of the interaction between child and adult lie the meanings of the relationship and this is where the individualities of both child and adult meet, with their expectations and questions.

THE DATA

In my research (Riihelä 1996) I was interested in the meanings of questions and the situations in which they occur. The data was collected in two welfare clinics, four day care centres, three schools and one library. The data consists of everyday situations in these institutions, where professionals meet children in dialogues. The professionals was chosen from those, who had been attending development projects for several years. So all adults in this study had already for a long time been interested in promoting childcentred ways of handling with the working situations. The professionals were doctors, nurses, kindergarten and school teachers and librarians. The children were from three to twelve years old. The material has been chosen from a much more extensive data material in order to find as many different situations as possible for the qualitative analyze.

CHILDREN ASK 100 QUESTIONS, BUT ADULTS ASK 178

It is not always easy to hear or understand the questions of children. They ask them in as many different ways as adults. They use direct and indirect forms. They persuade with their questions and they question with their persuasion. They invite you by their questions to discuss with them and they reflect and wonder at times with a thousand questions. The adults' manner of relating to their questions resolves whether children continue to develop their questions or whether they stop asking. Children's questions are quietened by adult responses, by both positive and negative evaluation, by pedagogical counterquestions and particularly by adults' own questions which assess children's knowledge and skills. Children's reflections and questions are in abundance just there where adults also reflect and question, wonder and err.

In spite of the fact that all professionals attending this study were aware of the purpose, to seek for children's questions, in this empirical material the children asked a hundred questions, but adults asked many more questions (178), nearly twice as often as the children.

The majority of the children's questions are directly concerned with the situation which the adult has created and, by questioning, the child is clarifying the meaning of things.

Children often use sentences which are not in question form although they are using them to ask about or draw attention to something. They begin as follows: Guess what.....? or D'you know.....? Another question group consists of hypothesis setting and testing. In this data this appears mostly in the time tasks children perform in small groups in school, but it also appears in the studies of leaves and birds.

Adults' questions are usually longer than children's and the following types are found. The type of "small talk" questions which affect the atmosphere or, to use Rönnerberg's (1989) term, are "enticing", are not concerned with the matter in hand but are chiefly meant to lighten the atmosphere, make contact and show the child that the professional is especially interested in just him or her. These appear most in the diagnostic scripts.

CHILDREN'S QUESTIONING DEPENDS ON RESPONSES GIVEN BY ADULTS

I have based my categorisation of the question-response chains which follow children's questions. To summarize the findings I would point out that the adult's share in the question-response chain differs widely from the way children express themselves. Only the adults produce the following dialogue functions: evaluation, evaluation question, evaluating conversation, response with encouragement, preventing response, interruption, warning, judgement, encouragement, naming, encouragement to solve a problem and giving instructions. More briefly, children are inspired to ask questions only in those situations in which adults do not use interactive functions from the above list, apart from the last two. In other words, a child's reflection is arrested by an adult's hidden evaluation, encouragements, naming, preventions, interruptions, warnings, judgements and pedagogical or diagnostic questions. Children's questions are barely seen in these question-response chains because the adults are giving the message at the same time as asking a question that they are very stealthily moving towards that kind of concept which they want to teach the children. And the children's attention goes on guessing what the adults mean and what they have in mind.

With their short questions, children are orienting themselves to finding out just what is the "name of the game" in a particular situation. The adult's phrase "I just meant" and, in another situation, "Soon", clearly tells the child who is going to control this situation and who is going to wait. Amongst other things these are hidden evaluating messages. In the background is the positivist logic of psychological testing which presumes that instruction has to be the same for everybody in order for the results to be comparable. The same phenomenon appears in the time concept in the instructions for small groupwork. Nevertheless, in this case the children's questions burst out when the professional withdraws to the side from the controlling role.

Jukka: When you go into space in a rocket, can you die? Vesa: Of course you can! Children's shouting and hubbub: When you go to the stars.... when you turn, just steer..... Teacher: Now then, try and do it so that when you talk in class, not everybody talks at the same time. Try to listen. Always when somebody else says something, the others should be quiet. And now we will finish with this subject.

Jeppe waves his hand. Teacher: Well, Jeppe, what is it? Jeppe: Just that those bags are suns. Teacher: Oh. Tomi: They are not! The teacher interrupts and carries on with the next task.

When we read these two examples it is impossible not to ask what would have happened if the teacher had not interrupted the children's discussion. How can space be given for children's questioning and reasoning when there are thirty of them in the same room? What alternative strategies are at the disposal of the professional? When children get interested and start dealing with problems, their voices become raised and their physical movement increases markedly. An adult works often by sitting in one place, quietly alone with a computer day after day. Any noise interrupts concentration. The ways that children and adults work are so different that it occasionally come to mind that maybe they should not be working together in the same space. They only appear to disturb each other.

COOPERATIVENESS IN DIALOGUE IS BASED ON TWO-PART QUESTION-RESPONSE CHAINS

Long, uneven question-response chains (two-part, without the third adult-evaluation part) arise in connection with longer themes. This section - adult's question, child's response, adult's evaluation of child's response - is not always necessarily verbalised in speech. The third part may equally well be hidden and operate as the adult's unconscious process which regulates the interaction. By this manner the adults plan the next speech turn or, from a long term point of view, their own pedagogical and diagnostic tasks. However, these hidden intentions of the adult are also transmitted to the children, (compare other theories) at the latest when they notice that the adult is not following their track of thought and there is nothing for it but to find out where the adult's conversation is leading to and what is meant to be done.

Uneven two-part chains also arise in short conversations. In the library it is possible for question-response chains to occur which flow on a service basis when the professionals treat children as clients.

There are also other examples of fluid conversations. In the following we see questions and answers from the bird project in one day care centre (G= girl, B= boy, T= teacher): G1. (answering another child): You mean these? G2.: Yes T.: Oh yes, there was that one. G1.: Would you take this? B1.: I would take these, they're the sharpest of all. G4.: I'd take these. G6.: I'd take one like this. (in play language). T. (answering and nodding): Mm.

B1.: What's that? T.: (Reading from a book) It's a sparrowhawk. T.: (continues reading)

B1: (asking about a picture in the book): Where's the bullfinch's foot? T.: It isn't shown here. It's a bit like that one (shows the book)

B1.: Whose is this? T.: It belongs to a bird of prey because it's got such sharp claws.

G2.: Is it that a hawk or what? T.: It doesn't say

G2.: These look awful T.: Yes, it's actually a mallard's foot. They only look strange.

G1.: Looks like this. G2.: I wonder if I'd dare to touch something like that?

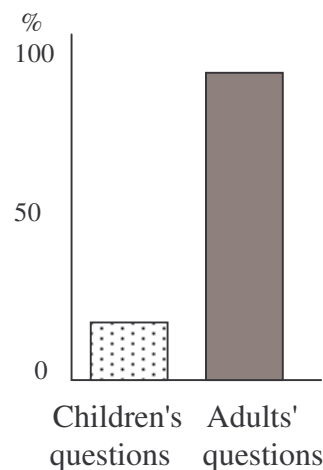
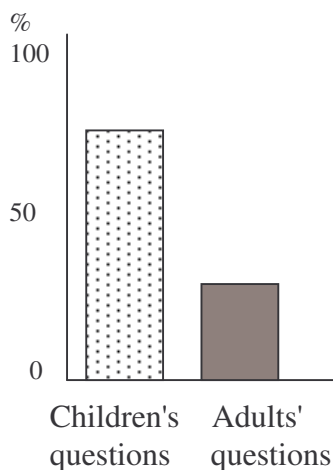
The skills of eight-year-olds in conversational cooperating are demonstrated well in the following example from school where the children are discussing hourglasses. I have presented this conversation in columns with one speaker's lines in each column. This is the best way to show the principles behind the four boys' turntaking. The boys also allow space for the teacher to interrupt although the instructions she presents fail to significantly advance the boys' work.

Figure

Division of questions between children and adults in the conversations

A. Deliberative conversations

B. Broken conversations



Children ask questions in dialogues which are more fluid in nature, whereas adults present their questions to the children in the broken, multi-layered dialogues which contain a lot of adults' questions, evaluations and directions.

Children's questions are mostly found in balanced interactional situations. Where adults' questions appear a lot, part of the situations progress on the terms of the initiator (i.e. usually an adult initiator), part begin on the terms of the professional but are transformed into collaborative, balanced dialogues.

The aim in this paper has been to shed light on the importance of the answer to the questioner and to the cooperative process but it is clear that the field requires considerably more research.

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