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ABSTRACT

The experience-oriented approach to early childhood learning assumes that the way children see, understand, and conceptualize is more basic than skills and knowledge, and that preschools should systematically work on developing children's awareness of different phenomena in the world around them. Content areas in this approach foster children's: (1) awareness of reading and writing skills; (2) experience of numbers and development of arithmetic skills, by getting children to grasp the meaning of numbers generally, and their meaning in different aspects of counting; (3) awareness of the natural world, including the ecological cycle, growth, living and dead things, and the change of seasons; (4) understanding of aspects of the human-made world, including history, culture, and geography; and (5) understanding of their own learning process. Teachers should become informed about research on and descriptions of children's thinking, and develop their knowledge pertaining to methods of interviewing and principles for planning thematic instruction. The experience-oriented approach acknowledges that children learn from one another, children talk and reflect on concrete situations, and teachers can expose the processes by which children think and take advantage of these processes in their instruction. A list of 44 references and samples of children's artwork are included. (HTH)

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OCEANS OF MEANING
Using children's ideas as content in preschool teaching

Background

There are two dominant prespectives within the field of early childhood education. The first one focuses on children's development as an internally driven process. The most important means here is children's play. The other perspective is borrowed from the ordinary school system and views children's learning as a transference of skills and knowledge from outside of the child. Traditionally, academic skills are supposed to be learnd by practising and working on them, in for example, "before- school-books". Elkind (1988a,b) is one of a number of researchers who raise warningfinger about pushing children into traditional academic learning in preschool.

Many researchers talk today about a cognitively oriented approach to learning in preschool. Weikart (1988) summerizes research showing that direct instruction in kindergarden has a great benefit across a variety of measures later on in school. He means, that preschool children need a lot of individual attention from the teachers. "Young children need to interact with people, not on a sheet of paper, and teachers need to maximize the amount of time they spend with each child"(op.cit. p. 92). The High/scope programme is one examlpe of a cognitively oriented preschool programme (Weikart, 1989). It is however based at the piagetian view of general stages of mental skills. The child's intellectual level is related to structural changes in the mind (Piaget, 1975).

Katz (1988) also refers to different longitudinal studies, when she suggests that preschool should be intellectually oriented in a way where children have to interact in small groups, as they work together on a variety of projects that help them make sense of their own experience. She is suggesting a project approach around different themes or topics over an extended period of time. The project ought to consist of reconstructing environmental aspects within the preschool setting, or investigating aspects of the environment which include the development of various ways for reporting the findings of the investigations to classmates in different ways. The phases of the project are planning, constructing or building the parts of the project and finally include role playing, or talking roles appropriate to the various elements of the project. Katz (op.cit.) argument is that the curriculum should involve children in the kind of activities that engage and challenge their minds more fully than either academic or play activities typically do.

I agree with Katz (op.cit.), although I have some problem in seeing how this differs from the preschool tradition developed by Fröbel (1974) and then by Schrader-Breymann (Johansson, 1992). During the late 19th century Schrader-Breymann formulated a principle for work in preschool in terms of "Monatsgegenstand"(Middlepoint for work), which in Sweden later was changed to "Center of interest", and today this subject-matter integrated approach has the name, "Theme". My claim is that people within the field of early childhood education are looking for a new approach to learning as neither academic study, nor play, is what they want to see in preschool as the best condition for children's learning and development. Although we do have our roots in a cognitively oriented approach to learning. I do not mean, that we should go back to an approach to learning as Fröbel and Schrader-Breymann stated it more than 100 years ago. But rathers utilize all new research about childrens learning in the light of this tradition, which seems to have gotten lost.

In interview studies with preschool teachers, it was shown that many of them had problems in specifying the aim of their work with children. When they were asked to say what they wanted to

reach in their work with children, they talked in general terms like, "children should feel secure, develop creativity, co-operativeness, self-confidence, a feeling for nature", etc. They often confuse aims and means (Kihlström, 1992: Pramling, forthcoming). My experiences from working with applying an experience oriented approach (Pramling, 1989) as an alternative in preschool is that it comes into conflict for preschool teachers in two ways. One is a conflict with her preschool soul, which is very psychoanalytic. It is as if the teachers think that they destroy something if they interrupt the child's own world. The other is their own way of looking at learning, as a remnant from their own school time.

Theoretical view

The notion of learning is burdened with the idea that there exists a boda of facts which has to be transfered to children during their education. Newer research shows however that it is almost impossible to separate learning and development (see e.g. Stern, 1985). Another way to look at learning is to say that learning is development is learning. Learning means a qualitative change in the child's way of thinking. If the child has learnt something, she looks at the world around her in a new way. With the total sum of our experience as adults as well as children, we have a taken-for-granted approach to the world around us. If we learn something, it means that our taken-for-granted assumptions collapse, to in the next second, become integrated into a new taken-for-granted way of looking at any specific phenonomenon (Marton & Helmstad, 1991).

The child's "life-world" is formed by the experience he has got. Children's experience build up a structure of relevance with implications for what he finds interesting or not, how he goes about working on a task, what he learns etc (Hundeide, 1989). Within the field of phenomenography (see e.g.Marton, 1981: Marton, 1988: Pramling, 1983, Pramling, 1989, Säljö, 1982), it has been shown that people's conceptions of learning have effects of what they have learnt. Children's conceptions of reading have effects of their capacity to learn to read (Dahlgren & Olsson, 1985). Children's conceptions of numbers have effects of their skill to grasp mathematics in school (Neuman, 1987).

Pramling (1989) also showed that by working on children's lived experience in relation to their own learning as well as the content worked on, they become better learners than a comparison group. The children in the experimental groups not only developed an understanding of their own learning, but also understood new "stories" in a qualitatively more advanced way, which means that they discovered other kinds of relationships in the content.

An experience oriented approach to learning

The assumption of this approach is that children's experiences (the way they see, understand, conceptualize) is more basic than skills and knowledge, and that this is what preschools ought to work on. In othar words, they should systematically work on developing children's awareness of different phenomena in the world around them - on making the world more transparent.

The startingpoint of an experience oriented approach is to define the what-aspect of learning, that is, what idea do we want to make visible to the children. What is it we want them to understand - to be aware of?

The content

The preschool "curriculum" focuses on phenomena in the surrounding world and is partly oriented towards the subject matter taught in school. But I want to emphazise strongly that it is not identical with the school curriculum, since in school it is a question of children learning, for instance, the skills of reading, writing and counting. *The alternative approach focuses on providing children with conditions - to develop the basis for learning.*

Within the field of *reading and writing* this alternative involves making the children aware of these skills - to make them visible to children as part of their own experience. What are the features of

these skills? How could the relation between verbal and written language become visible? How could it be visible to children that the flow of speech is divided into words? What is the function of being able to read and write? What is a symbol?

Support for this kind of content is found in Dahlgren and Olsson's (1985) study of how children conceptualize reading. There it is shown that children who did not have an idea about why one ought to read and how to go about it, developed learning problems in school. On the other hand, all children who had the idea that reading would enable them to read books, messages etc, rapidly learned to read in primary school. Francis (1982), using another another research approach, has made similar findings, i.e. that children's ideas about the school activities have a strong bearing on what they actually learn there.

Another content is the *experience of numbers*, which is not the same as performing counting procedures - learning the operations. The alternative view in this approach is that arithmetic skills are developed by getting children to grasp the meaning of numbers, and their meaning in different aspects of counting.

Neuman (1987) has shown in her research into the subject of arithmetic, that when a child in school ran into difficulties when tyring to solve arithmetic problems, the reason was not a lack of counting procedures, but that the child had not developed a basic understanding of numbers or the counting activity. Neuman claims that children who have not conceptualized numbers as a pattern, but have to count every number to solve a problem, will run into difficulties when they have to work with higher numbers (over 10) later on. To be able to do this, children must be able to imagine numbers. According to Neuman, learning to imagine numbers can be done by getting children to conceptualize patterns, for example,"finger-pictures". A similar view of basic arithmetic can be found in the Japanese preschool, where arithmetic is not seen as a question of letting children manipulate and exercise with symbols, but as imagining arithmetic problems in dialogue with the children (Gordon, 1987).

Doverborg (1987) studied two preschools with regard to children's development of arithmetic skills. One of them worked in school-oriented fashion and trained different arithmetic aspects during lessons. The other one utilized everyday life by making these aspects visible when laying the table, when they did needlework, baked, cooked etc. The evaluation showed that children who had been involved in the latter approach to arithmetic were better at solving arithmetic tasks than children who had worked in a way similar to that in school.

A third content is to *understand aspects of the natural world*, which could involve making children aware of the ecological cycle (Pramling, 1989), growth, living and dead things (Stepans, 1985), the change of seasons, changes in nature (Maurice, Staeheli & Montangero, 1990) time (Dionnet & Montangero, 1990), aspects of technical science (Driver, 1982; Lybeck, 1981), etc.Within every area it is not the facts children should be given information about, but the focus is on developing their thoughts.

A fourth content is to understand aspects of *the man-made world*, like the surroundings in a perspective of *time* (history) and *space* (cultural and geographical aspects). This could mean focusing on phenomena in society such as the shop (Pramling, 1991), professions (Furth, 1980), social interactions (Damond, 1977) such as co-operation (Klerfelt, 1991), artwork (Gutafsson, 1992) etc.

The fifth and last area of content is children's *understanding of their own learning*, that is, making them aware of both *what* they learn and *how* this learning comes about (Pramling, 1983). Earlier studies have shown that the child's metacognive level is of great importance to learning (Brown & Reeve, 1985: Pramling, 1987: Pramling, 1989).

Guidlines for practise

There is no simple method to adopt, but the *teacher's* awareness should be directed towards: 1) *becoming informed about existing research on and descriptions of children's thinking* (see the

section above), and 2) developing their own *methodological knowledge* in areas such as methods of interviewing (Doverborg & Pramling, 1985), principles for planning themes etc.

The first step when planning a content is to decide what *the goal* of the theme is in terms of what possible understanding to work towards with children. What "figure" is to be made "visible" and what ought to be its background? Using notions from gestalt psychology. What kind of relationship can a child in the age-group in question grasp? One goal for instance, could be to understand the relation between bees and nature, within a theme on bees. The second step should be to find out whether the children have already achieved an understanding of this particular relationship previously. To learn about children's thinking could be done by means of interviews, drawings, drama, problem-solving, through play and so on. When, in an earlier study, interviews were carried out about the relationship between bees and nature, it was shown that all the children knew that there was a relationship, but they all took the point of view of the bee (Doverborg & Pramling, 1988). This means that they knew that the bees needed nature, while none had the idea that nature needed the bees, for example, for pollination. When the teacher has completed this interview, she will know what there is left to work on from her first goal. The third step in the planning process is to create concrete situations around which children will be able to think and reflect. Finally, it is necessary to document all activities constantly so that the children's learning, i.e. the thoughts developed by the children after being involved in a specific theme, may be evaluated at a later date.

The two aspects described above are skills which the teacher must have, in combination with an awareness of how and what she wants the children to develop. Apart from the teacher's knowledge as described above, and taking the *children's* point of view, the methodology of this approach is based on: 1) *children learn from one another,* which means that the differences between children are held in focus instead of their similarities, 2) *getting children to talk and reflect in concrete situations,* which means to be able to put other kinds of questions than teachers normally do, 3) the teacher must *expose the ways in which the children are thinking and use these as a content in education,* and 4) children should *be involved in activities* which directly influence them (material, situations, play, etc.).

To thematize different contents means not only introducing a specific content, as described earlier, but also being able to utilize everyday situations to give children the opportunity to be aware of different phenomena in the world around them.

Ideas as a content

Education always has to begin from the child's own experience. This is a sentence which is written in all official documents for both school and preschool in Sweden. Every teacher in the country would also agree upon this statement. But what does it really mean? Hansen (1992) has asked a group of pre- and primary school teachers what they mean by beginning from the child's experience. She identified five categories of description: 1) To identify the child's level of maturity and meet the child on this level in relation to learning. 2) Learning has to be based on children's earlier knowledge. 3) Teaching must relate to children's interest to increase their motivation. 4) Since children's social background varies, they have different possibilities for benefiting from school. 5) Learning must be experience based in ways which utilise all the child's senses, not only the mind.

None of the above categories relate to the developmental perspective on this paper of experience held by us. Experience, for us, means the way the children are formulateing their life-worlds in relation to the content worked on. It means that the teacher has an aim, something she wants children to become aware of. She create situations, tasks, questions on which children have to work, practically and intellectually. They have to <u>think and reflect</u> and share their ideas. Most importantly in a situation like this, is not that a child comes up with a right answer, but with <u>the flow of ideas.</u> It is by explaining and making ideas visable that children get a chance to realize their ways of thinking in relation to others. The project "Problemsolving via dialogue" in Urbana-Champagn has a similar approach (Esley & Stake, 1984). I will now illustrate work on this

approach in relation to the content earlier discribed with a couple of observations from practice in preschool.

Number and counting

One aspect of numberconception is dividing. Earlier studies have shown that preschool children solve division problems from the prespective of sharing, in the sense of sharing equal in social terms (Doveborg, 1987, Neuman, 1987). This means that children find problems, when they are asked to divide uneven numbers. However, the content to be divided is of great importance. We can see below how twelve children solved the problem of dividing a cake into eight pieces. Three children divided the cake as a whole in eight pieces, while eight children divided eight similar pieces and then commented the rest of the cake with "that's left over". One child doesn't share at all equally but puts eight marks straight over the cake and gets nine pieces.

3 children 8 children 1 child

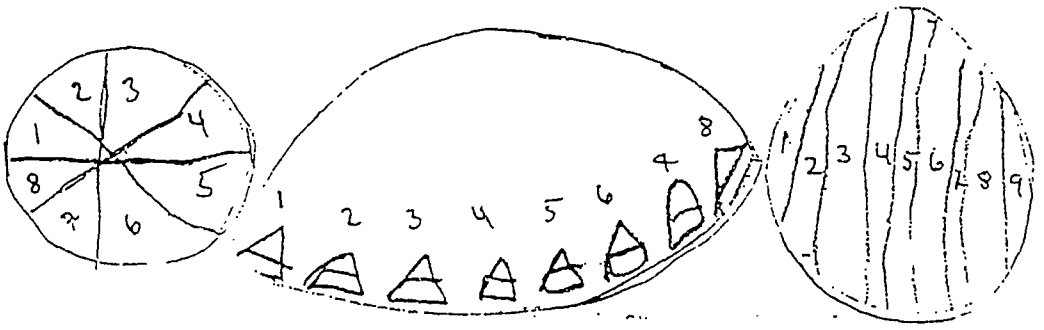

Figure 1: Three different ways to divide a cake.

The teacher can then utilize these three different ways to solve the problem by showing all the children how this problem was solved in different ways and also asks the children to express how they feel about their own way of solving it. Dividing a cake is an excellent example of how the child's "life-world" becomes obvious. A cake can be used for cutting out pieces, but they do not need to be equal since grown-ups can eat bigger pieces than children, and it is totally realistic to save some cake.

Order is an other aspect of mathematics. Children in a group are requested to make a drawing of the sequence of how a butterfly develops after having worked on this topic for a while. The teacher asks them to think carefully about how they would make the order visible to people who didn't know it. Some children drew the pictures from left to right, explaining that that is the way to read. Other children put an arrow between the egg, caterpillar, pupa, and butterfly. Still other children put numbers in connection with every stage. One child put the pictures on top of each other, and a few could not remember all the stages or understood what a sequence was.

Afterwards they put the drawings on the wall and talked about their different ways of thinking about how order could be illustrated.

Another example was when a couple of children asked how many people there lived in their own house. For children living in their own family house this wasn't a problem, but for children living i apartmenthouses it soon got complicated. However, as we can see in Apprendix 1 they tried hard to solve the problem with different strategies.

Gabriella (6 years) begans by writing all the family-members with a number behind. She then drew her house and counted every window (48). Gabriella: "I do not want to write all thefamily members since we are so many, 10 people. I write 10 here. There are 11 floors in the house (she

has drawn 12). I know 7 who live behind other doors. (She names all those people, except one who she has forgotten the name of).I think we are 16 on our floor".

Nanette comments on her drawing: "Me and my mammy, tha's two in one flat. Under us live four, three people and a dog, tha's four. At our neighbours there are six, mother, father, a child, a grandmother and grandfather and a small rabbit. Guess who they are?(points at her picture). They live on the top floor. I don't know them. Next-door lives small Jimmy with his mother and "pretend father". I think there are 13 on our stairway. I don't know how many there are in all my house, it isn't countable!

Marcus: I think there are thousand-million people in all my house. We are six in our flat. I have made a sign for every person then I can count them. Next to us lives two old people and next to them another old couple. Next to them is another 15 people, old and young. That makes 27 on the whole floor.

None come to a correct anwser, and that's not the important part. But children make an effor and try to solve the problem in ways which could be talked about.

The man-made world

After having worked on different changes in society, children got a problem to solve which hadn't been discussed earlier in the group. The children were divided into small groups of 4 or 5. They all got two small cards of cardboard and were asked if they knew how people began to live together. "Where did they live?" Every child knows that they lived in caves, as they build one in the basement earlier in the year . "And how do we live today?" was the following question from the teacher. Children were asked to use one card for the cave and one for the house they live in today. They are then asked to think carefully about how people may have lived in the meantime, and to take as many cards as they want to and draw people's accommodation.

An example of one child's suggestion is the cave, an igloo, a peghouse, a strawhouse and a "normal" house (see Appendix 2). Another child drew the cave, a wooden hut, a cottage and a block of flats. Other children did other combinations. The next day they looked together at all the different ideas and children had to explore their thinking about how peoples accomodation had changed.

Another content in one group was "learning to find your way in the forrest". The teacher walked into the forrest with a small group of children, where they found a nice place to play in. Before they were supposed to turn back home, the teacher asked them how they would be able to find the way back to this nice spot another time. The three different perspectives explained by children reflected different ways of thinking about this: 1) Trail-and-error method, e.g. "First one walks straight forward and then try to find the way back". 2) Repetition, e.g. "I have to walk this way over and over again, then I will learn the way in the end". 3) To observe and recognize specific things, e.g. "I would like to remember what the trees looks like, count them, if we turn left or right etc." Another day the teacher goes to the forrest with a new group of children and another day the total group came together and they had to share their ideas about finding their way in the forrest. One boy suggested making a map for finding the way. Everybody seemed interested in making maps, which they also later did. But first the teacher brought to their attention all the different ways they had suggested for finding their way in the forrest.

Reading and writing

Let's continue with the map from the last paragraph. Children were asked to make a map which their friends could follow to find their nice play-place in the forrest. A lot of children made maps *from their own perspective* (copied trees or other things they remembered). Other children were able to take a *satelliteperspective* (draw the trees from above and made the path in between). A third perspective is to make *symbols and talk about the map as a message to someone else*.

Children have to show each other their maps and talk about, how the map could be used by their friends. The teacher's intention with this was to give children an opportunity to realize that writing (symbols) is a way to communicate - to think.

Children who are used to this approach to learning sometimes make the comparison by themselves. Here is an observation of 4 children drawing pictures and "writing".
Alexander (3 years): I can't write!
Muhammed (5 years): I can show you. (He writes by pretending writing on Alexander's picture). Now it says Alexander there!
Danka (4 years): (Starts to scribble). Look I have written that this is a bus on it's way to Stockholm.
Alexander: But look at Christina, she writes in another way!
Christina (5 years): I write with letters, but it is okay to scribble or pretend writing. There are many ways to write. But in school you have to learn the alphabet.

To get children to reflect on reading the teacher one day asked children: "What is a fairy-tale?"
- Something to be read.
- Someone writes, and it becomes a fairy-tale.
- It is an old story.
- My grandmother has a fairy-tale she tells.
- The bible is a fairy-tale.
- Fairy-tale (in swedish *saga*) sounds like *Sara* (little sister's name).
- It is when you read about princesses.
- If you don't have a book - you can watch at fairy-tales at TV.

The teacher: "Did you listen to all the different ideas you all came up with about what a fairy-tale is?" And she repeated some of the ideas. She continues: "Why is it nice to be able to read?"
- To read in school.
- So that my father doesn't need to read for me.
- So I can read a message from my mother when she has gone away to the dentist.
- Then I can read to my baby-brother.
- I can write a letter to my cousin in Copenhagen.
- I can enjoy myself with books.

Once again children's ideas are explored and talked about. Children may often confuse reading and writing, but at least they get a chance to think, reflect and hear other children's ideas.

The natural world

A group of children were given the question: "What is nature?"
- Nature is at the museum in the city.
- Nature is a pet shop.
- I have seen nature on the TV - What did you see then? - Elephants and giraffes, and so on.
- Nature is plants and trees.

Teacher: "Is the sea and rocks nature?" - No!
Teacher: "Are people the nature?" - No!
The teacher suggest that they should write their different ideas in their note books, making sure they write down each new idea. Children who could write wrote ideas down, other children made symbols (animals, plants etc).

A few children were asked to fold a paper in the middle and then use the left side to illustrate lightness and on the right to illustrate darkness.

Mathias (6 years) made a house with windows, a chimney with smoke, the sun, seagulls, a smiling boy, a blue sky and green grass to illustrate lightness. Darkness was illustrated by the same house but without chimney and windows, a dark sky and no boy.

Lisa (6 years) illustrated lightness with a happy girl in the sunshine, while darkness is illustrated by the same girl, but sad and with a cloud in the sky. (For examples see Appendix 3). Other children illustrated it in other ways. From all these drawings the teacher had an excellent opportunity both to get children to express their ideas, but also to compare and try to bring to children's attention what was similar in their drawings on lightness and darkness.

Another group walked into a meadow. They each got a paper-bag, and the task was to chose at least five different objects to take back to reschool. Back at preschool they got a new task, to categorize their objects into living or dead things. They then had to draw all the living things on one piece of paper and the dead ones on another. Children also had to tell eachother which were living and dead and why they thought so.
Two examples follow here:
Stina (5 years): The cup is living, since it isn't broken. Birchseed and mushrooms and moss and oakleaf and fern are living. I do not think any of it is old. It will fade when it becomes old. The string, the handle and the "fish plastic-thing", they can die, but I do not know how. These are man-made things.

All the drawings were put on the wall the next day, and by comparing them children realized that some objects were found both in the group of living and dead things. A new discussion with new arguments opened up.

Pelle (6years): The Willow-leafs are green. They live. The pine-cone is dead. It lived when it grew in the tree. Acorn lived when they were green. The peg isn't alive, because pegs which live are on trees, but this one doesn't. The rowanberries are alive. When they become crumpled are they dead.

Learning
In a theme where a group of children worked with "growing of new plants", a boy one day said: "Which one is largest, the earth or the sun?". "Well what do you think?" asks the teacher. Marcus sais: "The earth, because it is air there! Isama said: "The sun, because it can shine so far away". Zandra continues: "They are the same size, because the sun shines all over the earth". The teacher made them aware that the sun can't be both larger, smaller and similar and asked them how they would go about finding it out.
Isaura: "Call the radio. They ought to know since they have a spare rocket for finding out the weather". Stig: "Call TV. People there go up to the sky and examine the weather. They can look.....or one can go there oneself". Marcus: "I can ask Håkan. He goes up to space sometimes". Gabi: "I will think about it". Zandra: "Read it in a book. My mother can read for me". Nanette: "I'll read in a book too".

In the afternoon when children are picked up by their parents, the teacher talks with the parents and the child about what he or she is supposed to find out for tomorrow. The parent whose child wanted to call the radio seems very emberrased, and the teacher says to her: "If you find it difficult, you maybe can find out the telefonenumber, and we can do it here tomorrow". And so they do! When each of the seven children the next day had an answer, the teacher drew symbols of the sun and earth, as equal, the sun largest and the earth largest. Every child has to give her answer and the teacher put a mark behind the symbol. After a while they realized that everybody now knew that the sun was the largest. The teacher then changed focus again to the learning aspect and asked them one by one how he or she found out. She finished this short session by bringing to the children's attention that they have used many different strategies to get to their answers.
The teacher is trying to make children aware of their own learning by taking a question by one of the children and creating a situation where every child has to think and reflect. They have to follow their ideas up in practice. And finally, once again come to see the variation of ways of finding something out.

Another example is from a group who worked on worm-composting. One day the teacher asked a group of children: "How should we go about learning someone else all we have learnt about worm-composting?
- We could *show* those who don't know.
- We could *tell* them.....and *explain*.
- We could *make* a worm-compost for them.
- We could *make a theatre* about worm-composting.
- We could make a *picture and write*.

The teacher: "Look how many different strategies you came up with for giving other children opportunities to learn the same as we have done.

Discussion

I want to bring it to the reader's attention that this approach to learning is not about developing children's knowledge and skills, but developing their awareness about different aspects of the world around them. The focus is on children's *learning to learn*, which here means developing their capacity to think and reflect and by that become more aware of different phenomena in the world.

To work together with a peer where problem solving is at a level just beyond that of the child, it is likely that the child will change his or her perspective towards the more advanced one (Kuhn, 1972). Researchers also begin to claim that working with a partner equal in skill, or even less advanced, may still yield progress (Slavin,1983). Light and Glachan (in Rogoff, 1990) found that peers who discussed each other's perspective were more likely to progress in their individual level of logic than were those who did not discuss the problem or whose conversations focused on assertion of status, although the consideration of each other's perspective did not depend on the child's initial level. Rogoff (op. cit.) argues that children's argumentation helps the child to diversity their understanding.

The aspect of the experience oriented approach which is specifically pointed to here, is using children's ideas as contet. Many researchers have pointed to the importance of verbalizing the child's actions (Broström, 1989: Klein, 1989: Weikart, 1989). But what I claim is that the variety of ideas has an effect as such on learning (see also Marton, 1981, 1988). It is by realizing the points of views of others, that the child becomes aware of his or her own way of thinking about different phenomena.

One of the problems for teachers beginning to work on our approach to learning, is that they recognize it and feel at home with it since it builds on the theme-oriented preschool tradition. But the break is the view of knowledge. Some teachers ask in the beginning: "But what about if no-one comes up with a right answer?" And I have to answer every time: "It doesn't matter, since it is the flow of ideas which are of importance". The interesting thing is that although the teacher's effort is on exploring children's ideas, children learn a lot of skills and knowledge. Gustafsson and Mellgren (1991) worked on this approach on the aspect of writing, systematically during 9 weeks with two groups of preschool children. When this work was evaluated and compared with two other groups, not only did these children's conceptions of the use of writing and how to go about learning it etc show a greater awareness, but also their knowledge of the alphabet and their ability to read words and sentences were much higher. 8% of children in the comparison group read, compared to 50% in the experimental group.

This approach has also been used in developing children's awareness of artwork in preschool (Gustavsson, 1992). Children's awareness changed to a large extend from talking about artwork in terms of what there is in the picture to the meaning of the picture. From the beginning children didn't have any idea about why pictures were painted, while children talked about "other people's joy" after the work. Another change in children's thinking was toward being able to take the perspective of the painter.

Working with children's "life-worlds", as these are expressed in their ideas, has a great impact on children's learning (Pramling, 1989: Pramling, 1991). The teacher's role is to focus on contents which to a large extend are taken-for-granted. That is, to focus on the unvisable ground of knowledge and skills.

Children's ideas as a content in preschool could be developed in a dialogue between a teacher and a child. It could be used in small groups of 4 and 5 children, which maybe is the ideal number of children for really giving every child an opportunity to think and share his thoughts. But it can also be done with 15-20 children together. There is also a lot of ways to make children's ideas visible, for example, by verbalizing, in drawings, in drama, in play, in construction work etc.

By utilizing results from research and building on the genuine preschool tradition, which differs significantly from the school tradition, we can develop an early childhood education programme

which is both cognitively oriented and child-centered. A programme which could be used systematically to develop children's learning. And it ought to be a programme which takes into consideration the oceans of meaning which children are able to express if we just give them a chance.

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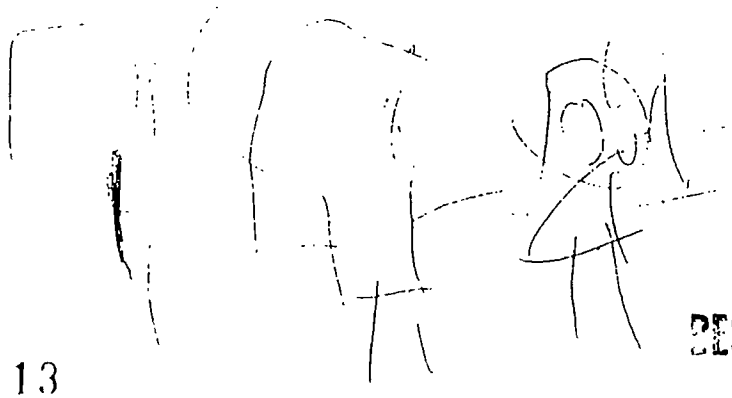

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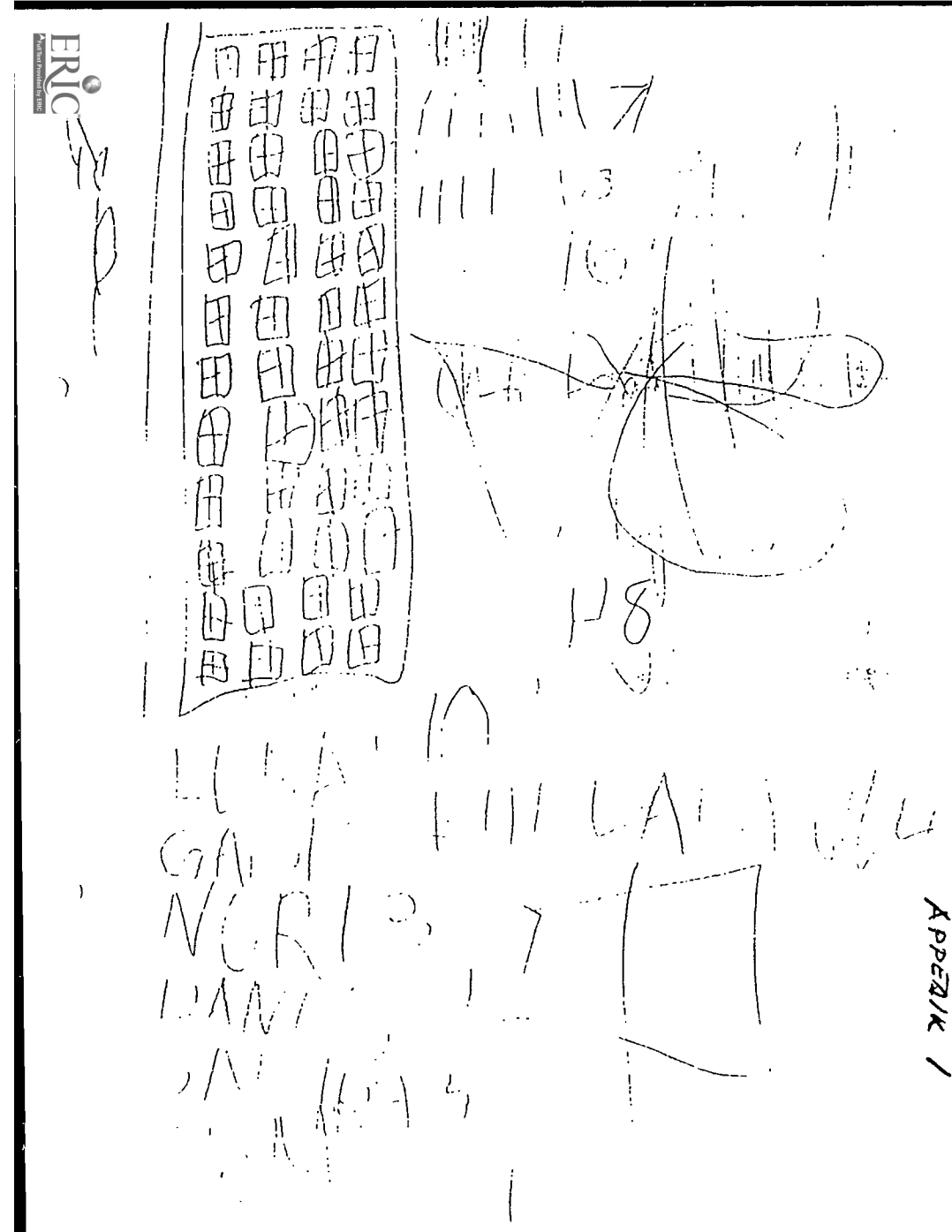
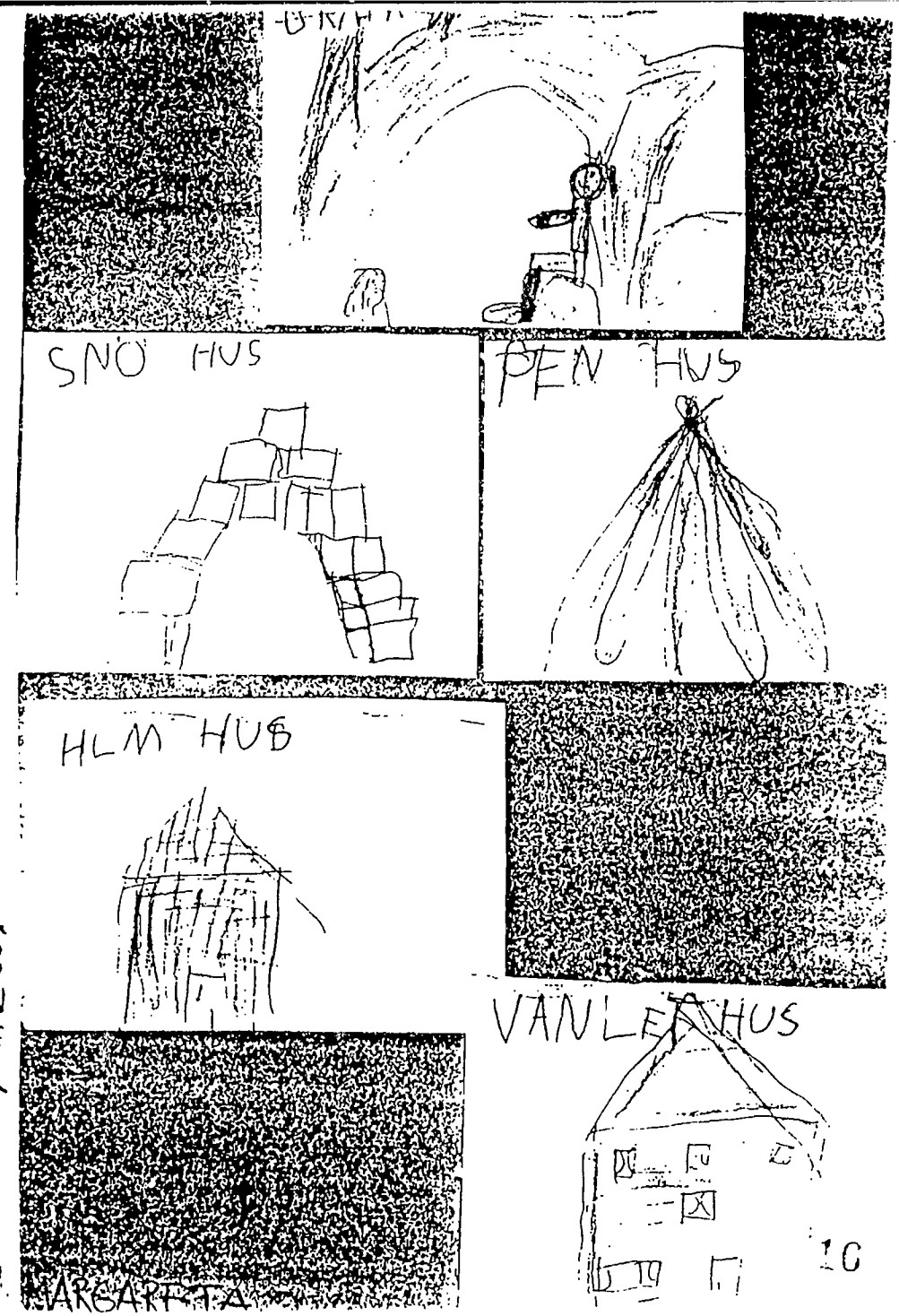
APPENDIX 7





APPENDIX 1

APPENDIX 2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