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Play Material and Equipment and its Use in Lower Primary School.

Abstract

With the national curriculum change in 1997 with public law L-97, both free play and more directed teacher organized theme play assumes a central importance in lower primary school. Classroom organization clearly influences the quality of the educational play as reported in earlier research. This presentation centres on the physical environment with attention to the use of materials and equipment. Observations and teacher interviews are used to map object use across types of play across grade levels with children in the age range from six to ten years. Of interest is the use of materials for free play versus more structured types of play, and the use of materials balancing choice among construction play, dramatic play, and games with rules play. Results and applications from the study will be discussed, including the utility for a leaflet telling teachers what, how, when, where, and who uses different materials and equipment in the educational settings in Norway's lower primary education.

Background

With the Norwegian National Curriculum from 1997, (L97), play should be given a central role in the lower primary school. 247 periods, (school hour of 45 minutes), shall be used in grade 1.- 4. for "free" activity time/ "free" play. Beside play shall be used as a dominant learning, working method in teaching the different subjects. In the classroom, this will include construction play, dramatic play and games with rules play.

The ability to play is often connected by the objects available in an environment that stimulates playing. Earlier works, (Trageton, Hagesæter, Helming (1998) and Helming (1999)), have shown that the classroom set-up matters considerably. It seems that it provides an important part of the stimulating learning environment. Our questionnaire showed that in classrooms organized in work/play corners there were 50% more play than in traditional classrooms.

The way the classroom is arranged and the choice of play material and equipment will let children know something about the teacher's view of learning. Solstrand (1999), refers to Claula, an American environmental psychologist, who asserts that the physical environment signalises expected behaviour. The physical environment contains cultural codes that affect the message, what kind of activities the physical room is planned used for, and what is not endorsed. The classroom with its play material and equipment will give a stimulating signal of what kind of play and other activities that are valued and planned

Problems

Problems in connection with play material and equipment in lower primary school that have been addressed, include:

- What kind of play material and equipment is “common” for lower primary classrooms in Norway?
What kind of play material and equipment can pupils choose between in “free play” and free activity time?
- What kind of play material and equipment do teachers use when play is used as a learning method, and why and how is this material and equipment used?
- Is this material good for “free-play” and good for a method of learning? –Is it useful for social / play learning, cognitive learning or/and other aspect of learning?
- Do the pupils get a balanced choice between construction play, dramatic play and game play, both in the “free play” and as a learning method?

Methods

Mapping, lists of play material and equipment in lower primary classrooms, are collected by students of 6 –10 years pedagogic during the year 2000/2001 as part of their practice report. 30 students have had practice periods in grade 1.- 4. , in 26 different schools, in 37 classes.

Grade	N,(num ber)
grade 1	11
grade 2	2
grade 3	11
grade 4	6
multigrade grade 1-2	4
Multigrade Grade 3-4	3
total	37

In the practice the students have made drawings of the classrooms and lists of equipment, including play material available in the classrooms they have had their practices. In addition to look at the drawings and lists, I have had a talk with each student about the physical environment and equipment in their practice classroom, and got their opinion how they found the classroom functioning.

Beside, this work is based on my own observations and qualitative interviews with teachers in lower primary schools.

Results

Analysis and Evaluation of Play Material Lists in Lower Primary Schools Collected by Students

As a result of the Curriculum of 1997, play material have in the lower primary classrooms become more and more common. The students of 6 –10 years pedagogic have in their practice periods written down detailed lists of the play material and equipments found in the

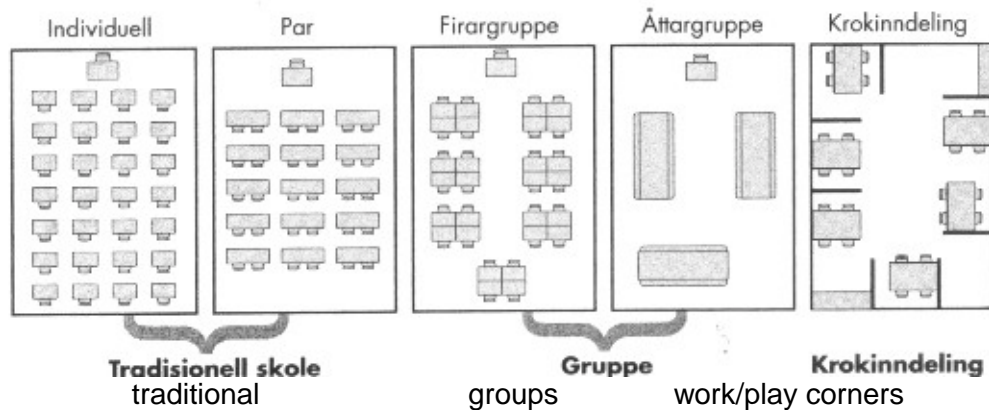
classrooms. Out of these lists, I have constructed the categories found in table 1. The categories were naturally chosen, since these play materials were common in the classrooms.

In addition there are art and craft materials. Traditionally art and craft materials are a natural part of a Norwegian lower primary classroom. Therefore these are chosen to be hold outside the categories. PCs are chosen as one of the categories in the play material list, because they are more and more used for play and work at school.

Table 1; Play material in 37 classes in lower primary school;

	N	P C	game s	puzzle s	dolls	car s	dres s	sho p	w.blocks	lego	Sandb .
Grade 1	11	4	9	3	5	4	3	2	9	7	1
work/play.corners	4	1	3	1	2	2	1	1	4	4	1
Groups	6	3	6	2	3	2	2	1	4	3	
traditional	1								1		
Grade 2	2	1	1	1	1	1		1	2	1	1
work/play.corners	1	1	1	1	1	1		1	1	1	1
groups											
traditional	1								1		
Grade 3	11	6	9	1					1	1	
work/play.corners	2	1	2						1	1	
groups	6	5	6	1							
traditional	3		1								
Grade 4	6	4	3								
work/play.corners											
groups	2	1	2								
traditional	4	3	1								
Multigrade Grade 1-2	4	4	4	3	3	3	2		3	1	
work/play.corners											
groups	4	4	4	3	3	3	2		3	1	
traditional											
Multigrade Grade 3 – 4	3	2	1								
work/play.corners											
groups	1	1	1								
traditional	2	1									
Total	37	21	27	8	9	8	5	3	15	10	2

N = number of classrooms, **PC** = computers in the classrooms varies from 1 to 6, **games**, (“spill”); like yatzy, løko, ludo, lotto, memory, **puzzles**, (“puslespill”); jigsaw puzzles, **dolls**, (“dokke-/familiekroksutstyr”); doll-/family corner equipment – dolls, housekeeping objects, cars (“biler, tog”); cars, trains, **dress** (“utkleddningstøy”), dress-up clothes, **w.blocks** (“treklosser”); wood blocks, mostly .Trageton blocks, **lego** = traditional lego blocks, **sandb.**(“sandkasse”); sandbox in the classroom
The classrooms set up have been categorised in three groups; traditional, groups and work/play corners.



The mapping collected by students of 6-10 years pedagogic, shows not surprisingly that in classrooms divided work/play corners and groups there are more toys and play materials available. In the traditional classrooms there are hardly any play materials available. It seems that the play material offered in traditional classrooms are mostly mathematical and language card games. Not surprisingly there are most play materials in grade 1 and hardly anything except mathematic – and Norwegian language games, in grade 3 and 4.

Quite a few of the teachers in grade 1 in lower primary school have a background as kindergarten teachers. The way the classroom is set-up, often finds inspiration from kindergarten tradition. Especially in many grade 1 classrooms, you find the traditionally kindergarten doll corner beside block corner. Around 50% of these grade 1 classrooms have doll play corner with dolls and kitchen-play equipment. The majority of grade 1 classrooms have wood blocks. Trageton wood blocks, (1100 blocks of 4 sizes, 2,5 x 5x 5cm, 2,5 x 5 x 10 cm, 2,5 x 5 x 20 cm and 2,5 x 5 x 50 cm), are widely used. Among 13 classes in grade 1 and 2, 10 use wood blocks. All of them, except two classes in two schools, have Trageton´s wood blocks. The other schools use Kapla wood blocks. Surprisingly, there are more classrooms where you find wood blocks than Lego.

The amount of play material that is available in the classrooms varies. In some classrooms there are hardly any play material available, in others plentiful. For the lower elementary school, games are the most common play material in the classrooms. The amount of PCs has increased drastically the last three years in the lower primary school. Over 50% of the classrooms have PC. Especially in grades 3 and 4, the only play material and equipment available are games and PCs.

Table 1 shows that there is little differences between the kind of play material offered to pupils in work/play corner classrooms compared with classrooms with groups set-ups. Quite a few of the students have mentioned that they would have preferred work / play corners, but in many classrooms it is difficult to find a good way of arranging such corners. Doors, windows, heating systems under the windows cause problems for optimal arrangement. Often it is easier to arrange groups in the classrooms than work / play corners.

Dramatic play is highly valued in the Norwegian kindergarten, and according to the play material in many of the classrooms, also highly valued in many schools. Doll-/family corner is very common, doll corner with dolls, play kitchen with play kitchen equipment. Some have also dress-up clothes for inspiration to various roles. Some doll-/family corners are more open for different kind of use than traditional “family” play. A few schools have a range of boxes that contain different play material and equipment for dramatic play use. One of the boxes, for example, has the equipment needed for post office play, another for medical doctor play, and so on. The pupils pick up the box they need for their dramatic play from a shelf in the classroom or if there are not enough space, from a shelf in the corridor, and use it

in the doll-/ family corner in the classroom. The family corner thereby can be used for a variety of plays, and play material and other equipment varies according of the choice of the children.

For construction play material, you find mostly Trageton's wood blocks but also traditional Lego. In 8 of 11 first grade classrooms, (73%), there were wood blocks and in 7 of the 11 classrooms, (64%) there were Lego blocks. Hardly any other bought construction play material is found in most of these primary school classrooms, except craft material. Only in 2 of 37 classrooms have a sandbox. Few classrooms have play shop equipment, and surprisingly none of the third grade classrooms. According to the curriculum in mathematic for grade 3, the children should play shop. However, one cannot conclude that this objective in the curriculum in mathematic is not dealt with. A shop can easily be constructed in the classroom by putting desks together, let the children draw some money and "sell" equipment found in the classroom.

Few classrooms have jigsaw puzzles; most were found in in first grade classrooms. Games like ludo, yatzy, lotto and card games that are used to improve language and mathematical learning, are available in most classrooms. Games as play material are mostly found in grade 3 and grade 4. Computers are more and more part of the Norwegian classrooms. There is not much difference concerning grade level and / or classroom set up if there are computers in the classroom. This reflects the policy of the local school authority. The computers are used in mathematic and language training. Only a few allow the children to use computers with traditional computer games. It is considered that children play enough with computer games at home.

Quite a few of the students have mentioned the problem to find enough space for the desired activities in the classroom. Play material has to compete with other teaching and learning equipment that is considered more important.

However, three students have mentioned that in their classrooms where there were only games for the children to play with, the children have opportunity to use the "SFO" room. (In Norway children in lower primary schools have only 20 school hours a week. A school hour is 45 minutes. 80% of all parents are working outside home. "SFO" is a place for free activity in school, that children go to before and after school hours. It begins at 7.30 and lasts until 16.30. The parents have to pay for the "SFO".) In the "SFO" room the teacher can pick up play material, and also use the room for teaching when it is free. For example, a first grade class in a traditional classroom, has opportunity to use wood blocks and Jovo - plastic cube construction material, in the "SFO" room. Another grade 1, in a 4 group set up classroom, has the opportunity of playing with cars, Lego, wood brocks, games and play in a doll play corner of the "SFO" room. A grade 3, also in a 4 groups set up classroom, can use the "SFO" room for playing with wood bricks, Lego, cars, use the doll play corner and games. However, the students in practice saw hardly that this opportunity was used, and it was not seen used in the grade 1 that is in a traditional classroom. ??

Observation of Classrooms and Interviews with Teachers

Up to now I have visited three schools, two in Bergen and one on Stord. With the National Curriculum of 1997, the starting age for schooling was lowered from 7 to 6 year. Many schools built new buildings for the 6 years old and the "SFO". These three schools have two parallel classes on each grade. School No. 1 is old, but the building for grade 1 is new. School No. 2 is old, but the building for grade 1 and 2 is new. School No. 3 is new and altogether built according to the national curriculum of 1997. I have visited all grade 1 to 4 classrooms, but mostly emphasized on grade 1 and 2 and have had qualitative interviews and conversations with the teachers in grades 1 and 2.

Table 2. Play material in three lower primary school classes

	P C	game s	puzzle s	dolls	car s	dres s	sho p	w.blocks	Lego	sand b	other
School, No. 1											
grade 1	x	X	x	x			x	x	x	x	x, Jovo, cube. const. mat.
grade 2	x	X	x		x			x		x	x, dollhouses
grade 3	x	X									
grade 4	x	X									
School No. 2											
grade 1		X	x								
grade 2		X	x						x		
"SFO" room				x	x	x		x	x		
grade 3		X	x						x		
grade 4		X									
School No. 3											
grade 1	x	X	x		x		x		x		x, hammer mosaic
grade 2	x	X	x								
"SFO" room		X	x	x	x			x		x	x, Jovo, farms
grade 3	x	X									
grade 4	x	X									

PC = computers in the classroom, **games**, ("spill"); like yatzy, løko, ludo, lotto, memory, **puzzles**, ("puslespill"); jigsaw puzzles, **dolls**, ("dokke-/ familiekroksutstyr"); doll-/family corner equipment – dolls, housekeeping objects, **cars** ("biler, tog"); cars, trains, **dress** ("utkledningstøy"), dress-up clothes, **w.blocks** ("treklosser"); wood blocks, mostly .Trageton blocks, **lego** = traditional lego blocks, **sandb.** ("sandkasse"); sandbox in the classroom,

As seen from the table, grade 1 and 2, also these schools have mainly the play materials found in the practice schools of my students. School No. 2 and No. 3 have less play material in the classroom than in the classroom of school 1. However, these schools have joint areas with "SFO", play material and equipment that can be borrowed. Each grade uses the "SFO" room once a week. At School No 1, the grade 1 classrooms are used by "SFO". Therefore there are play materials and equipments in these classrooms that do not belong to the "SFO", but can also be used by the children during the school time hours. The parallel classes at the schools differ only a little bit concerning the kind of play materials and equipments in the classrooms.

How the play materials in the classrooms are used

Free activity time, free play time, indoors

The pupils expressed to their teachers that plays and games in the free activity time and in the breaks are the most enjoyable events at school. According to the national Curriculum 1997, 247 hours, (1 hour = 45 minutes), should be used for free activity, free play time. It is intended that the children have a considerable freedom on what and how they want to play. The general rules are: not to destroy or to disturb the play of others, conduct normal

acceptable behaviour with a reasonable noise level. It is intended that games demanding cooperation, should be emphasised by the teachers.

Schools No. 1

Both the children in grade 1 and grade 2 have free play indoors activity time (45 min) a week. The children in grade 1, can choose between 7 groups: Lego, wood blocks, games and puzzles, drawing, doll/family corner, make plates of plastic pearls and computer writing. They can change once from one to another activity. The groups of 5 children are fixed, but sometimes the children have opportunity to choose their activity freely, but then not more than with 5 in one group. The teachers have a circulation system. So it varies which group of children has the first choice.

According to observation and conversation with the teachers, the children seem mostly to enjoy woodblock and Lego play. It gives the opportunity of construction play combined with dramatic play. It is interesting to observe that two girls in a puzzle group, found it more interesting to use dies and cubes from game boxes for construction play instead of using the items as they usually should.

The doll-/family corner in the grade 1 classroom contained dolls, play kitchen equipment, medical doctor play toys, cash desk toys and telephones. Thus a variety of dramatic play can take place. However when real play occurs, more than just equipment is necessary.

In this grade 1 class, it seems that some had little experience with dramatic play and were not much interested especially when the activity was not chosen by themselves. In the doll-/family corner, for example, the play of a group of 5 children, 2 girls and 3 boys were observed. The children did not play in the corner as intended with exception of one boy. He was playing by himself while he spoke in the phone. The two girls were skipping with outdoors skipping-ropes, while two of the boys played fighting. These activities were not accepted, but a temptation for the children who were in a corner out of sight of their teacher.

The teacher of a grade 2 class at the same school, has also been teaching the same class from grade 1, and knows the children very well. In this class the pupils discuss with the teacher what they should play, and it circulates who can choose first, who is the second chooser and so on. At most there must be 4 -5 children in one playgroup. The children can choose between playing with Trageton's wood blocks, cars on traffic carpet, games and puzzles, make small plates of plastic pearls or play with self made doll-/family houses. Nearly all the boys, and specially three of the girls enjoy very much to play with the woodblocks.

It seems specially that boys like to build something. The girls like to play with the doll-/family houses. Except everything else only the used dolls are bought. Playing with cars only appeal to 7 – 8 of the boys in the class, while the brightest of them prefer other activities. The parents gave money to buy in cars and traffic signs to the classroom. The car carpet has been given as a gift. These boys still want to play with the car, but since only 4 - 5 can be in a group at once, some have to choose something else. Games and puzzles are not so popular. Making plates with plastic pearls is something that is chosen by the less social children, children who like to sit alone. Then they do not need to cooperate with others.

School No. 2

In this school the children in grade 1 and grade 2 have one period, 2 x 45 minutes for free activity, free play per week. The children have to be at one activity minimum half of the time to $\frac{3}{4}$ of the time, which will say they can change activity one time. The children can choose between varies activities. They sit in groups of four in the classrooms, and the teachers have a circulation system that has the first choice. The children chose independent from each other, but there cannot be more than six in each activity group. During the free activity time the children are in the "SFO" room, which each class occupies once a week. Beside the

activities in the classroom they can also choose to be outdoors in the big sandbox. In the classroom, the children can play with games, puzzles and weaving. In the "SFO" room the children can choose to play in the doll- /family corner, with Lego and cars, wood blocks, woodwork. The doll- /family corner is popular among the girls. Lego is at the moment not popular, and the few who choose it are boys. Wood blocks, however are more popular for both boys and girls. Puzzles and games are also popular for both genders. The children can also choose woodwork, which also attracts boys and girls.

School No. 3

The children in grade 1 have a period of 2 x 45 minutes, free activity/ free play a week indoors. In addition they have 45 minutes once a week outdoors when they have outdoors teaching. The children can change once, that will say that they maximum can choose two activities. There are 4 children in each playgroup. The children chose according to a circulation system, for be sure that the children get variation in their free play. The children can chose between things like playing with games, puzzles, hammer mosaic, writing on computer, weaving, play shop in the classroom, play with cars in the corridor, play with farm animals and brio train, or in the doll-/family corner in a small group room. The classroom is small, so the corridor and a group room that is shared by the parallel class are used for play. There is not space for a permanent shop in the classroom. All equipment is stored in four quite big plastic boxes. The children put benches together for setting up the shop when it is playtime. To play shop is very popular both among the boys and the girls. Both the girls and the boys choose equally the doll-/family corner.

The boys prefer Lego. To weave is presently a popular activity. Wood blocks are popular among the children, but the children are not offered to play with wood blocks in the free activity time. The pupils use them when they have Trageton's "Workshop pedagogic", (Trageton 1994), in the "SFO" room once a week. However, they cannot use the "SFO" room in the free activity time, when the room is not free. It is also for much work and to heavy to transport the woodblocks to and from the "SFO" room. In the SFO room there are a quite big sandbox on wheels, play farms, Lego, Jovo click cube construct play material, doll-/family corner and games and puzzles, equipment mostly used in the "SFO" time.

Play as learning method, working method

According to the national curriculum, play shall be used as a learning method, a working method in grades 1 to 4.

School No. 1

Language games like rhyme games are used in Norwegian language teaching. Logical pieces, plates - plastic models of triangles, squares, counting sticks and so on, are used in mathematic to make the subject more concrete. In one of the second grade classes, they have Trageton's "Workshop pedagogic" once a week, and use thereby both construction play and dramatic play in these lessons. Games for mathematics and language are used quite a bit. The grade 2 teacher also use "teacher in role",- dramatic play, when introducing children for new knowledge area.

School No. 2

Both in grade 1 and 2 teachers use mathematic and language card games. They also use quite a bit dramatic play, when introducing new topics to the pupils. In the first grade, hand dolls are found to be a useful tool for getting children more interested when dealing with areas that have to do with ethics, relationship and behaviour. In the classroom there are two fabric animals, the mascots of the class. They have their own backpack with diary books. A child takes the animal toys home for a visit until the next day. The parents of the child who have the toy animals home for a visit, have to write in the diary book what the animals have

experienced, while visiting them. What the parents have written in the book is read up for all the children on next day in school and then talked about. The children have been very happy for having the mascots visiting them, but not all parents have been. Some have felt that it is too much work to write the diary.

School No. 3

Once a week first graders use "Workshop pedagogic". They also have a class mascot, a teddy bear named "Dennis". "Dennis" has also a backpack with diary book, but he has only been allowed to visit the pupils over the weekend. The parents have then to write in the dairy book of "Dennis". In this class none of the parents have reacted negatively on the writing job. However, they only have a visit of the teddy bear one weekend over the whole school year. What the parents have written is read up for the children on Mondays.

In Norwegian language rhyme games are used quite a bit. In mathematic "Logical pieces", plates with rectangles, squares and so on are used. Card games are not much used during teaching. However, the children use it quite a bit themselves when 1/3 of the class at once is on a computer room with 7 computers with the main teacher and the rest is together with a assistant teacher once a week. The teacher would like to use more dramatic play in the classroom, but she finds it difficult because spaced is lacking. The teacher would like to have work/play corners, but find it impossible in the small room. Once a week, when they have outdoors teaching, she feels that they sometimes manage to use elements of dramatic play, for example when the children found equipment in the forest for illustrating and playing a fairy tail.

Play and learning outcome

The teachers consider first of all the social development, and the feeling of confidence as the most important learning product of play activities. They also mean that the cognitive development benefits from the play activities. Outdoor play actions are especially beneficial for the motor development. These teachers mean that the play activity they offer the children supply a balance between construction play and dramatic play. However, one teacher has strongly emphasized that the timetable does not provide enough time for play and other activities. It takes, for example, some preparation before dramatic play can happen. Often the planes are too ambitious compared with the available time.

Material that the teachers would like to have in the classroom

Teachers working earlier in the classrooms have mostly bought the play material and equipment. In the old schools, there is often material that can be found when looking around in the buildings. In some classes parents gladly have given money for toys to their children. For example in grade 2 at School No 1, play cars were bought. Different card games in this class were taken away from first graders, because they were too difficult to play with. Chess games were found on the school and taken to the classroom. Nobody has asked for it, so it continues to stay in the classroom.

A second grade teacher desired a better shelves, so it is easier to keep order. Yet the 56 m² classroom has little space on its walls. There is, for example, so little space, that books from library have to be put in two plastic boxes on the floor.

A first grade teacher is missing proper science equipment, both for play and teaching. It is a question of economy, but also a question of space for storing. Another teacher mentioned that the equipment should be able survive rough handling. Another first grade teacher wants more puzzle - tools. There are some in the classroom, but mostly on kindergarten level, which is useful for some, but not for others. She likes more material like "logical pieces", plates, triangles, figures etc. providing training for mathematic, and letters for language improvement. She prefers also material of good enduring quality. In the classroom this

teacher has now a box with such training material, which have to be shared by other teachers of different classes. The material is made of easy to handle plastic and the set do not belong to the class, so there is no possibility to let the children play with the illustration material.

Teachers have mentioned, there is often good equipment in the school, but it takes too much time to run around to get it. In addition several want to use the same material, but only one set is available. If such learning material is stored at other remote places and not in the classroom, too much time passes, and the here and now initiative of the children can hardly be employed properly. A grade 1 teacher considers that if the classroom would be big enough for a real kitchen, the fun of real food making would stimulate practical learning of mathematics in a playful way. Real kitchen equipment is for school children often more enjoyable and fascinating than doll corner with play kitchen equipment.

Discussion and Conclusion

Out from the lists of play material and equipments in lower primary classrooms collected by the students of 6-10 years pedagogic, I constructed ten categories (see table 1 and 2):

- 1) PCs
- 2) Games (yatzy, ludo, lotto, memory etc),
- 3) Jigsaw puzzles
- 4) Doll-/family corner equipment (dolls, housekeeping objects)
- 5) Cars (cars, trains)
- 6) Dress-up clothes
- 7) Shop
- 8) Wood blocks
- 9) Lego
- 10) Sandbox (in the classroom)

The categories were naturally chosen, since these play materials were common in the classrooms. It can be discussed if this way of categorising the play materials is the most suitable.

Johnson, Christie, and Yawkey, (1999), have categorised the different play materials in these categories; Animate toys (- animals, people, and creatures of all types and varieties), Transportation toys (- miniature trains, cars, trucks, wagons, ships and trains), Dramatic-play props (- dolls and doll accessories, kitchen utensils – silverware, pots, pans, dishes, miniature tables, stoves, and refrigerators, toy irons, ironing boards, and brooms, baby carriages and cradles, toy phones, dress-up clothes), Educational toys; puzzles, stacking toys (- ordering object by size, colour), stringing toy, nesting materials, pegboard sets, Construction toys; blocks, building sets (- lego, tinkertoys, lincoln logs), Gross-motor toys (- balls, jump rope, climbing equipment), Real materials; sand, water, and mud, art materials. They have also made a shorter play materials list, where play materials are categorised; Dramatic-play props , Dolls, Dress-up clothes, Vehicles, Blocks, Puzzles, Beads, Art construction (scissors, paints), Clay, playdough, Sand, water. (p.286- 296)

To categorise play material is not easy. It may be discussed if it is naturally to categorise Dolls and Dressing-up clothes as part of Dramatic-play props as in the first list, or as own categories as in the second list. Hartmann, Neugenbauer and Riess, (1988), have categorised the play materials; Spielmittel für Rollenspiele - Dramatic play material (- dress-up clothes, shop, doll house, hand dolls, play phone, dollkitchen etc), Spielmittel für Experimentieren , Bauen und Konstruieren – Construction play material, Spielmittel für das regelgebundene Spiel - Games (-games without use of material like others song games, and

games with use of materials), Spielmittel für das Bewegungsspiel - Movement play (p. 32-55)

My list of play materials differs from the others, but has also similarities. How to categorise materials for dramatic play and construction play are quite the same. My way of categorising games seem not to be detailed enough. The way of categorise play materials may differ from one culture to another. Play material and equipment that are used for outdoors play activities, I have found naturally not to put into my play material list. It is the play materials used in the classrooms that are of my interest. Johnson, Christie and Yawkey include craft and art materials in their lists. Hartmann., Neugenbauer and Riess do not. Traditionally art and craft material are a natural part of a Norwegian lower primary school classroom, and are much used in the teaching. I find it therefore not naturally to put it into my play material list.

None of the others have PC, computers, on their play material lists. PC has become a part of life both at home and at school, and quite a bit of time is spent in front of the computers, included computer games. I have therefore chosen to have PC, computers, as one of the categories in the list of play material.

It seems that the less play material the teachers have immediately available in the classroom, the more they incline to traditional manners of teaching. But there is not a direct connection. Much depends on the personal interest of the teacher. Often the play material and equipment is bought or given to teachers working earlier in the classroom.

The play material and equipment can be in the classrooms, but not necessarily be used. In a grade 3 class, I saw quite a lot of Lego beside card games. I asked the 5 boys who still were in the classroom in a break, when they used the Lego etc. The answer was, that they never did. Play and equipment in the classroom is not enough for getting play going. At least as important is the attitude and play competence of the teachers.

The available play material the children can choose between is amazingly alike from school to school. It also seems that people reflect little why certain equipments are in the classrooms, and what learning will result out of playing with them. Many teachers are more occupied what their children find enjoyable than profits for learning. "Play time is what my pupil find most enjoyable in school" is expression often heard from grade 1 and 2 teacher who often have kindergarten teacher background.

However, play with objects is a pervasive activity of children, and for the lower primary school children the play material and equipment may function as inspiration for dramatic play, which is particular valuable for social learning.

Play material for construction activities like wood blocks and Lego inspire often dramatic play. One can wonder if doll/family corner should have a space in the small classrooms. At some places the children enjoy playing in this corner, especially when this corner inspires to different kind of dramatic play and not only traditional kitchen activities. For example, housekeeping objects and dress-up clothes provide inspiration for dramatic play. The latter is often carried out in a shared social setting where the children have created shared meanings. One can conclude that play materials and equipment have social and cultural benefits. The teachers here evaluate first of all the play learning outcome as social, and also that the children increase their feelings of confidence. Such play has therefore emotional and psychological benefits.

These play activities provide also cognitive assistance. Morgenthaler, (1998), writes; "The ability of children to use objects in an array of ways for a variety of purposes enriches the impact of that play on their cognitive, physical, social, and emotional development. To allow or assume less is to limit the power of that play and our understanding of it." (p. 366)

It seems that the choice of play material and equipment as well as the classroom set up matters, and provides the necessary framework for play. The space in the classroom is often too narrow. Therefore the use of limited space for play material and equipment should be carefully reflected upon. As many teachers express, the things are already in the classrooms.

With the new school reform when the 6 years enter the school, quite a bit of the play material and equipment that are in these classrooms were bought in. A problem in many classrooms is that the equipment is badly placed because the lack of proper storing system. There are classrooms where different card games and puzzles are laying disorderly in a big box on the floor.

When looking at the practice reports of my students and my own observation in schools, discussions with the students and the teachers in the schools, I find there is quite a similarity of choice of activity and way of organizing the free activity time/ free play time in the schools. These are schools with classrooms arranged in groups or in work/play corners. How play as learning method is used seems to vary more, and is depending which kind of pedagogic platform the teacher believes in. The play activities that are offered the children do not seem to be based on reflected choice and wanted learning outcome. One can, for example, ask if car play is a proper activity to spend time for in school hours. As a teacher mentioned: "The car play does not give much but the boys enjoy it."

There is in these classrooms not found direct play materials that can develop the children interest and curiosity for science and especially physic and technology. The science level in the Norwegian schools stands generally on a low level. Proper play material and equipment may raise the interest for that learning area and develop a better attitude towards these subjects. There is still too little connection between play material and equipment and what the curriculum demands on the subject. For example, none of the grade 3 classes in this material have a play shop in their classroom, although the curriculum of mathematic for grade 3 recommends that the children shall play shop.

One wonders why children prefer certain kind of play material. For example, Trageton wood blocks are among majority of these pupils more popular than Lego. Can the reason be that Lego is something nearly all children have at home? The Lego at these schools are traditional Lego blocks and not the technical/electronic Lego that may be more fascinating and developmental for school children. The wood block may be fascinating because of it big size that naturally invite to group activity. With these woodblocks the children can build houses, cars etc, which they physically can be in. The wood blocks play stimulates to the fantasy and combines very much construction play and dramatic play. It also is a toy the kids do not know from home.

Hopefully, this paper can be a background for a discussion of what play material and equipment that is recommended to have in the classroom and why. The aim is that my ongoing study later will give background for making a leaflet helping teachers to set up a workable classroom and choose play material and equipment that can be beneficial for the pupils learning in the lower elementary school.

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