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# Play as part of learning – learning as part of play

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## Introduction

*Flexible and individual learning and teaching have repeatedly been a topic of conversation in the last few years. Teachers and parents as well as pupils hope that a child would be seen as an individual in school, in such a pedagogical environment where a child's daily life and his inherent way to play and learn form a coherent whole.*

*This research article is based on a pedagogical development project of learning environments. The research target is a school in a mid-sized town in western Finland. The school has a pre-school group and three joint 1st and 2nd grade classes. The focus of this research article is the school's way to take into account individual and flexible learning and teaching methods. The study can be defined as action research, as its aim is to open the planning and working process of the school and show how the school's practice has formed during the development project.*

## 1. Interaction between theory and action, individual and the society

Action research is an approach that aims to open everyday action from the point of view of improvement. The background of this study is the multiannual cooperation, joint reflection and education of the participating teachers, which creates a strong basis for improving learning and teaching methods. According to Heikkinen (2001) and Robson (2002) action research at its best creates new kind of understanding of daily life at the same time as it pursues to improve working life practices. It is essential that the development target is constantly assessed and that theoretical study and practice interact with each other. A typical question of action research, what purpose does this action serve (Heikkinen 2001; Robson 2002), has been given also another form in this study, namely what kind of action could serve this purpose, when the purpose is to improve individual, age and skills sensitive learning where central is the interaction between the individual and the environment from the point of view of phenomenon-based learning. This question became also a research question of this study, and we aimed to answer it by creating phenomenon-based contextual-pedagogical learning wholes.

With the help of this study we aim to specify the pedagogical planning behind a learning project experienced by pupils as play, and also define the connections to primary education curriculum. The pedagogical action presented in this article can at its best work as a model of transformational pedagogy that gives shape to hands-on work from the point of view of planning, putting the plan into practice, connections to curriculum, and assessment. It can also provide tools for individual and flexible teaching and learning.

Referring to contextual-pedagogical approach, Meriläinen and Piispanen (2013, 164) present in their study differences between transformational and traditional learning process, from the basis for planning till assessment. It is noteworthy that, as regards transformational learning compared to traditional learning, significant changes take place in all sectors and also in the teacher's as well as the pupil's action. The learning process becomes both a more individual and a more communal event: it gives room to individual development and growth supporting the pupil's strengths as the interaction between pupils supports peer learning in the social framework.

## 2. The research intervention – Broadening the view of the world with play

*When Albert Einstein developed the theory of relativity, it is told that he began from a ridiculous thought: What if I could sit on a beam of light? What would I see? How about others? That untrue thought started the most remarkable intellectual revolution of last century. The same spirit of play is behind every scientific invention. (Kauhanen 2005)*

In this action research we wanted to reach the spirit of play in learning. The teachers participating in this intervention created two separate learning projects that gave shape to transformational pedagogy in planning, putting into practice and assessing the learning of 6 to 8 year-old pupils (pre-school and the first two years of primary education). The basis for the action was the thought" Play as part of learning", where all the contents of curriculum can be included interdisciplinary in action that is familiar to children and suitable to their age, namely play. Through play it

was possible to study new things in authentic, imaginary situations that were created with play. The imaginary, authentic situation (a farm and a miniature society), the toys and materials involved (among others scale models), and the authentic tasks that guided the action brought the pupils to face problem situations where they had to be creative and build new information in cooperation (see Herrington, reeves, Oliver 2010).

The importance of play is often forgotten in school if it is seen as a separate thing from learning. Play, fairytales and action should be understood from a philosophical point of view, as such a world where children create and test values, rules, and social interactive situations (see Huiziga 1938, 1970; Skinnari 2007, 99). Huiziga (1938) even states that play is one of the most important sources of pleasure and creative experiences (compare to so called flow): a child absorbed in play easily forgets time and place and feels involved in the events of the play, which makes play a very authentic experience to a child. Pedagogically well planned play is an extremely important part of learning and is a common basis for the learning of all people in all ages, as Huiziga puts it, since play is present everywhere and all the time – playing is a basic feature of humans, and not only children's' fun.

The presence of play in learning process got teachers involved in the intervention to ponder the nature of guided play as follows:

*I wonder how much I should instruct play? When is play so instructed that it turns to a play? On the other hand, play in school does not need to be free: instructing is important because we learn play and pursue a certain goal with it. We study.*

Teachers wanted play to be a part of the learning process, but they understood the challenges of the situation: curriculum sets the goals that are pursued through play. Thus, play needs to be instructed to some extent. It must be based on things learned and provide a possibility to learn something new. However, for play to succeed, it should give possibilities to creativity and freedom. In addition to curriculum, play is guided by spaces and toys related to the things studied. Hintikka, Helenius and Vähänen (2004) state that in order to play, a child has to come up with an idea that includes information about what, how, where and with what to play. Mostly these ideas arise from the environment that an adult has created for the child (Hintikka et al. 2004). When play is part of a learning process, a teacher guides the play idea towards the goals, allowing everyone's individual way of participating in play.

In their discussions, the teachers also reflected on how play is seen outside school world. As regards learning, is school more or less appreciated for basing learning on play or playfulness? The teachers felt that during years they had had to convince others that learning happens regardless – or probably just because - of the great amount of play as part of school work. However, they had experienced convincing others so challenging that, had they not had enough time for the development work or permanent cooperation with colleagues, they would have given up. Through this reflection it is easy to understand why the change of school pedagogy towards play and games is slow: if those ways that arise from a child's world is seen as mere dabbling and their connection to curriculum is not understood, teachers easily get tired of convincing everybody that their work is goal-oriented.

## 2.1 Play as part of learning

*With play, a child adapts to the environment. In play a child collects things from the real world and connects them into his own reality. (Hintikka et al. 2004, 37)*

With the help of the two learning wholes presented in this study, Farm Market and Mini Society, the teachers highlighted some central issues that guided the planning of teaching: children's age, peer learning, social interaction, non-hectic pace, a possibility to proceed individually, helping one another, and practicing self-direction. Playful learning is in key position as regards these things (Huiziga 1938). In social play a child verbalizes his action, which is central in learning: a child phrases his action and together with other children reflects on the things he learns (see Vygotsky 1982). New, also difficult things can be approached through play. Play creates a safe atmosphere since the nature of jointly agreed play includes the understanding that play is a game and the role, played in the game, is only a role.

In this research intervention the learning wholes were composed of different games (see Table 1), through which the children worked on the theme-related curriculum contents. Learning curriculum contents is enabled by the planning process, and the instruction of play, and it is viewed from the point of view of contextual-pedagogic approach:

As regards learning, both context and pedagogy are seen as being linked to interaction between an individual and his environment. Thus, learning is a personal experience that happens in interaction with the environment. It is not restricted to learning a single fact, but aims at logical thinking through dialog with the environment, and with the help of reflection, reasoning, and research. Instead of contents, central are the skills learned, the 21st century pedagogy, pupils' various knowledge and skills, and their natural ways of learning using modern methods and equipment. (Meriläinen & Piispanen 2012, 5450-5451)

Thus, even from the point of view of the curriculum, the starting point is not to learn a subject content for itself, but to help the pupil understand that contents actually get meaning when they are linked to an authentic experience. This naturally helps motivate learners and creates joy of learning (see Marandos and Randall 2012). Learning and subjects can in fact go unnoticed by the pupil, once he enters this kind of a learning process. The next tables introduce the rough

structure of the learning project Play as part of learning from the point of view of the pupil's activity (Table 1) and the curriculum (Table 2).

**Table 1. Project Play as part of learning as regards pupils' action**

| Phenomenon | Pupil's role | Activities of the project |
|---|---|---|
| **Farm market** | Different active roles in theme-related play. Pupils work in cooperation with each other (pre-school, grades 1 and 2). Highlighted topics:<br>- peer learning<br>- social interaction<br>- non-hectic<br>- individual procession<br>- helping one another<br>- self-direction<br>For example: ”Build a cow house, a henhouse, a piggery, a stable or the like using building material.<br>Make a card of your farm animal: name the animal, describe what it feeds on and how to care for it. Care for your farm animals.” | -Tractor play: gaining information about tractors, reference books, visits to an agricultural store. Making a tractor brochure, Getting to know the concepts wheel and lever. Building. Farm work in a sandbox.<br>- Farm play: how we get milk, farm animals, classifying animals, making hobby horses and playing with them.<br>- Market play: harvest, grains and their path to our tables. Garden crop, how to preserve and pickle, plant identification. From field to table.<br>- Bakery play: from field to table.<br>- Country fair and planning a harvest festival: conclusion and celebrating the project. |
| | Same as above | Play themes:<br>- house<br>- cafè<br>- dressmaker's<br>- building site<br>- work<br>- bank<br>- store<br>- daycare center<br>- vet<br>- school<br>- scientist<br>- bakery<br>→ the aim of play is to make children understand that there are many professions in the society, which all contribute to the function of the society. People go to work and use their income to get services and items. Working in different roles improves children's interaction skills and helps them better understand causal relationships. |

Marandos and Randall (2012, 541) refer to setting right kind of questions in order to motivate pupils, so that they could approach the topic from many different points of view and so be able to find a link to their own life (compare Drake & burns 2004). Searching for information from various different viewpoints and sources, and sharing the information with one another makes the topic closer, and learning happens in social interaction as the pupils make hypotheses, ask questions, make arguments and present new information about the topic they are studying. The teachers guiding the work define the goals and the assessment criteria. The teacher helps each individual pupil handling the information, according to his or her needs. Research questions, i.e. assignments, and the assessment criteria guide the pupil towards independent thinking and personal growth simultaneously with learning to learn and knowledge growth (see Marandos & Randall 2012).

**Table 2. Project *Play as part of learning* from curricular (2004) viewpoint**

| Phenomenon | The link to curriculum | Assessment |
|---|---|---|
| **Farm market** | **Natural sciences:**<br>Everyday technology. Yard, park, garden. From seed to plant. Life as the whole of all organisms. Professions.<br>**Mother tongue:**<br>Working alone and in a group. Expression. Practicing reading and writing. The basics of media literacy.<br>Mathematics: Measuring (length, mass, comparison). Numeracy practice. Problem solving skills.<br>**Others:** Art and physical education as well as Information and communications technology work as means of learning in many ways. | **Social and communication skills:**<br>- Seeks interaction and joint play with other children.<br>- Is capable of persistent play with other children.<br>- Takes into account others when playing.<br>- Follows instructions.<br>- Behaves politely.<br>**Working skills:**<br>- Works on his own initiative and persistently<br>**Motor skills:**<br>- Gets practice in gross and fine motor skills.<br>**Mathematics:**<br>- Can measure length and weight with simple instruments.<br>- Gets practice in basic numeracy.<br>- Can make justifiable conclusions and explain his action.<br>**Mother tongue:**<br>- Gets practice in reading and writing skills.<br>- Is encouraged to express himself. |
| Mini society | **Natural sciences:**<br>Healthy lifestyle. I as a person. From baby to adult. Good manners. The others and I. People are different. | |

| | | |
|---|---|---|
| | Professions.<br>**Mother tongue:** Working alone and in a group. Expression. Practicing reading and writing. The basics of media literacy.<br>Mathematics: Measuring (volume, time, comparison). Basic arithmetic. Money. Problem solving skills.<br>**Others**: Art and physical education as well as Information and communications technology work as means of learning in many ways. | |

In their study, Meriläinen & Piispanen (2013, 164) highlight the importance of the teacher's planning work in learning projects: the teacher must know before the start of the project which are the goals of the project, what is the pupil's role, and what is assessed. Also the pupil has to be aware of these things so that it is possible for him to reach the goals. It is first and foremost a question of knowing the child's world and seeing the phenomenons of that world through curriculum – one must work on the zone of proximal development also in learning contexts and bring learning into situations that are natural for the child. The teacher's responsibility is to help the child be aware of the skills needed in learning and to support the child in achieving those skills.

According to the principles of transformational pedagogy, the target of assessment is not only subject contents, as it is in traditional pedagogy, but also the skills of broad-based competence (The Finnish National Core Curriculum 2014), as in the learning wholes presented in this research article. Play as part of learning trains psychological, social and physical skills in various ways – play trains to learn comprehensively. In play, various skills of broad-based competence that are highlighted in learning today, become essential: play supports and trains collaboration, knowledge co-construction, the use of information technology, problem solving, self-regulation, and skillful communication.

### 2.2. Play environment as learning environment

Kauhanen (2005) referred to Fröbel in Tiede magazine when he said that playing with good equipment develops a child and is therefore valuable. ”Good equipment” give space to creative play instead of functioning automatically and favoring only one type of way to act. Marandos and Randall (2012, 539-540) present in their study five factors that inspire pupils to be more committed to studying and thus improve learning results. All five factors are related to the learning environment; its interaction-related factors, how it takes into consideration the individual learning level of the pupil, its collaborative possibilities, possibilities created by technology, and the setting of tasks and goals.

In the learning wholes of project Play as part of learning we used familiar toys that were utilized in learning. For instance, different kind of wooden and plastic food and utensils, as well as hand puppets, could be used as instruments in a variety of games. Tools, toy cars, farm machines and animals were used to flesh out the diversity of agriculture. Traffic mats helped comprehend the town structure and offices. Mini-kitchens, cash registers and doctor's instruments demonstrated the function of different businesses (see Table 2). Some of the toys and learning equipment were made during the project, some – such as tractor leaflets – were products of the project. In addition to these toys, the children used iPads and traditional learning equipment such as pens and notebooks, which were used as tools.

Play does not necessarily need equipment, but often they inspire the children to play. Learning environment should be seen as a play environment, where toys are seen as instruments of learning. At their best, the same toys serve many kinds of learning situations and provide their user a chance to play and learn.

## 3 End results – mere play?

The research school's learning wholes in project Play as part of learning aimed at joining the pupil's experiences of the world and learning new things in such a way that serves different individuals. The purpose was with differents kind of play to provide every child a possibility to fulfil himself in different ways and to make use of his strengths as well as get peer support in tasks that he finds challenging and according to his level of skills (see Falk 2009; Meriläinen & Piispanen 2012; 2013). On the whole, project Play as part of learning was considered successful, though it raised some important questions among the teachers participating in the project:

*The challenge is to maintain structure through the project so that the pupils know and can comprehend what we are doing. How much information the pupils need before starting to play and how the information content can be included in play, these are questions that need to be solved. It does require good planning.*

*School is always an environment of its own kind, and play that aims at learning needs goals. One must guide the pupils so that play is nice and goals are reached. Thus, it is not free play, but free play was not the purpose of this projects.*

*It was interesting to notice that the guided and goal-oriented play was played also during free time and breaks. In a way, guided play turned into free play and inspired free play.*

According to the teachers it was clearly noticeable that as their knowledge was constructed and increased, pupils continued play that was first guided also outside lessons. This supported the conclusion that play was not too instructed but the play contexts could easily be included in the pupils' world. On the other hand, it also showed that pupils learned new things through play which they applied in their free play. During the learning process, what had first been guided play became free play where the children imitated and interpreted the events of different areas of life on the basis of the experiences, views and concrete information they acquired during the learning process (see Hintikka et al. 2004).

Learning and the importance of the authentic contexts and roles the pupils had in play was also noticeable in how astonishingly well the pupils remembered their games during the project Play as part of learning. One of the teachers said the following:

*I was wondering if the child would have spontaneously remembered so many things related to this learning whole afterwards if he had learned them in another way. Now many remembered so many games that they had played during the project.*

Pupils' individual ways of relating to play were evident even though play was instructed. This made the teachers ponder the many manifestations of play, and the fact that adults may see play as including a certain kind of action, whereas children can be involved in joint play in different ways.

*In joint play, some children played imaginary roles, others were building something. It was interesting to see how they understood the shared play in different ways. Some played alone, whereas others played in groups.*

Whereas school assignments easily guide to finding the one and only right answer, play always involves creativity and freedom even when it is instructed. Instructions steer play towards learning goals but allows individual freedom in how to reach them. Kalliala (2003, 185-186) points out that in play, the focus is on understanding play messages: in play, attitude is more central than certain kind of behavior. This means that one must allow different roles in play. Also Sharp (2007, 121-128) states that it is in so many ways important to understand the speciality of each child: children are self-reflective and considering subjects, as well as potential and moral subjects at the same time. From this point of view, noteworthy is that learning is linked to something that is familiar to the child, so that individuals can reflect on their action together and actively steer their learning during the learning process. When play is a part of the learning project, it is important to understand that shared goals steer play, but shared play can result in different kind of learning for different individuals. A parent said about the project, that

*My child was supposed to have the school start postponed by a year, as he is still so play-oriented. For him this is very good.*

The teachers felt that opening the school culture to parents was extremely important so that they know what their children do at school. Many think that school work is what it was when they went to school themselves, and they see learning as very different from how it is now seen. Thus, they may have contradictory feelings about play at school, unless they do not recognize and acknowledge the expertise of teachers in planning a learning project. It is not mere play, but play that enables learning.

## 4. Conclusion

According to a saying play is the work of the child. This research project showed that also schoolwork can be play, as long as it is well planned to steer towards curriculum goals and broad-based competence (The Finnish National Core Curriculum 2014). When planning a play project one needs to give room for creativity that comes from pupils' individual ways of approaching the subject from the basis of their knowledge and experiences, as well as accept the different manifestations of play.

The research project indicated that instructed play that steered pupils towards the learning goals actually turned into free play during pupils' free time and breaks. The equipment and things studied inspired the children's play and showed that they had learned the things they were expected to learn during instructed play.

When play is included in learning process, school work cannot be considered as mere play or busywork, but it must be understood that it is careful planning that enables learning through play. The planning behind play projects should be seen as the central when moving toward playful culture in schools: good planning sets goals for play as well as gives pupils freedom to play individually and creatively but still along the lines of the goals. Play is not mere play – it is work through which a child constructs his comprehension of the world.

*A common set of values creates a feeling of safety and continuity. Days and weeks are "similar" when play, activities and silent work alternate with each other. Rules are the same regardless of which adult is present. Work and play alternate and become interwoven, which contributes to the feeling of safety and continuity, and also predictability. Wonderful. Incredibly wonderful. (A class teacher student after a student teaching period)*

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