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MOTOR EDUCATION IN FINNISH KINDERGARTENS; AN ANALYSIS OF INSTRUCTIONAL TASKS

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Introduction

As a result of the new curriculum in Finland, kindergartens have begun to profile themselves in specific areas, such as music, art, and motor training. This means that kindergartens spend more time on the chosen area. Motor specialized kindergartens have existed in other Nordic countries for several years, but this is a new concept in Finland. There are reports about pilot projects but these cannot be considered as research reports, rather as handbooks about the programs (Karvonen, 1990). Nevertheless, educators agree that physical activity and motor training is important for the development of children (Gabbard, 1992; Graham, Holt/Hale & Parker, 1993).

Providing students with more time for motor training is not enough, because research findings suggest that students opportunities to practice are limited (Metzler, 1989, Siedentop, 1991). This funneling effect has been identified in elementary and secondary schools (Godbout, Brunelle & Tousignant, 1983, Pieron & Cheffers, 1988). In addition, other researchers (Buck, Harrison, & Bryce, 1990; Carreiro Da Costa & Pieron, 1990; Silverman, 1990) stated that motor activity will enhance learning particularly when students are successful in practice.

Students work is structured by the teacher's goals, instruction, and behavior. However, students will modify the work and there is a two way interaction between students and the teacher (Jones, 1992; Tousignant & Siedentop, 1983). While teachers set the boundaries for student work, researchers indicated that teachers spend about 20 % of their time in organizing students, about 20 % in instruction, and students were allowed to practice the rest of a lesson (Siedentop, 1991; Romar, 1994, Pieron & Cheffers, 1988). However, most studies in physical education are done with either elementary or secondary students, while children in kindergartens are ignored.

Therefore, the purpose of this study was to describe what happened during physical education lessons in Finnish kindergartens with intensified motor training, in order to clarify whether the motor specialized kindergartens provide children with adequate movement training or not. The analysis will emphasize both teacher- and student behavior.

Methods

One kindergarten with intensified motor training agreed to participate in this study. Two female kindergarten teachers taught physical education to 52 children at the age of five and six. Children were divided into four groups and each group had physical education once a week in a separate building. The number of children during a lesson varied from four to twelve. Eleven physical education lessons were observed and videotaped and these lessons lasted from 26 to 47 minutes.

The teachers, Annika and Britta, were in their early thirties. In addition to their preservice education for kindergarten teachers they had some additional training for teaching physical education. The teachers used preplanned lesson plans that were applied to each group. The goal of physical education was to enhance the children's interest in physical education and that the children would enjoy the lessons. During the time for data collection the teachers and children worked with movements and music.

The study was based on the task system model (Siedentop, Doutis, Tsangaridou, Ward, & Rauschenbach, 1994) and stated tasks were the unit of analyses. A modified version of Task-Structure Observation System was used to analyze data from the video taped lessons. One boy and one girl were randomly selected as target students for systematic observation in each task. Interobserver agreement was measured by comparing results for two independent observers and was estimated to be above what is recommended for systematic observation.

Teacher behavior was coded into four episodes. Supervising behavior with no relation to the actual matter was coded as **management**. **Organization** took place when the teacher organized the children or the equipment. The time when the teacher presented information was referred to as **instruction**. **Practice** related to the time when the teacher expected the children to practice given tasks.

In order to clarify how subject matter developed, the types of tasks were coded into five categories according to Rink (1993). **Informing** tasks gave information about a specific skill or strategy. **Refined** tasks were used when the teacher emphasized the quality of the effort without changing the conditions for training. Tasks that gradually became more difficult were referred to as **extended** tasks. **Applied** tasks trained a specific skill in a game while a well known task which the children had practiced earlier was coded as **routine** task.

The time children were expected to be physically active was coded as follows. **Motor activity** referred to activity according to given instructions. All the lessons ended by **relaxing** which meant that the children lay down on the floor while listening to relaxing music. **Waiting** took place when the task had started and the children were waiting for their turn. Children behavior which did not have anything to do with subject matter was coded as **other** activity.

Results

The two teachers used in average 71% of lesson time for student practice, while they used 13% for instruction, 10% for organization, and 6% for management. Figure 1 shows that lesson three, in which Annika used most time for practice, was characterized by familiar games and activity to appropriate music. As a result no further instructions were needed. Lesson five consisted of many tasks that needed detailed instruction while a new game was introduced. Figure 2 shows that Britta had more variation in time distribution among her lessons. During lesson two a great deal of the lesson (21%) was spent in organizing two boys who finally were told to stay outside the gymnasium, while only four girls participated in lesson three.

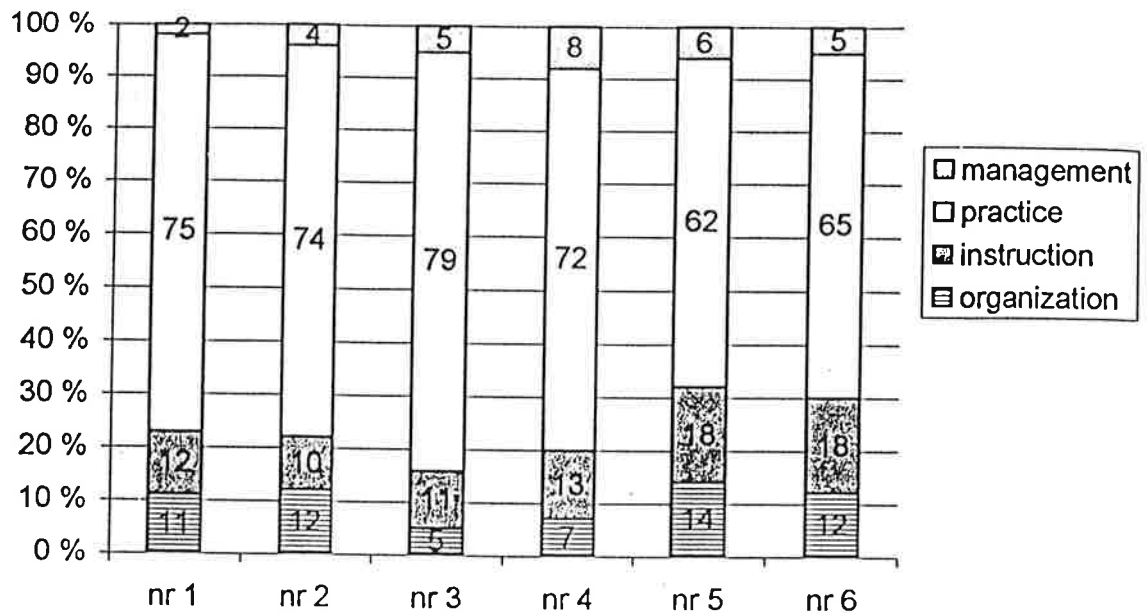


Figure 1. Annika's time distribution during physical education lessons.

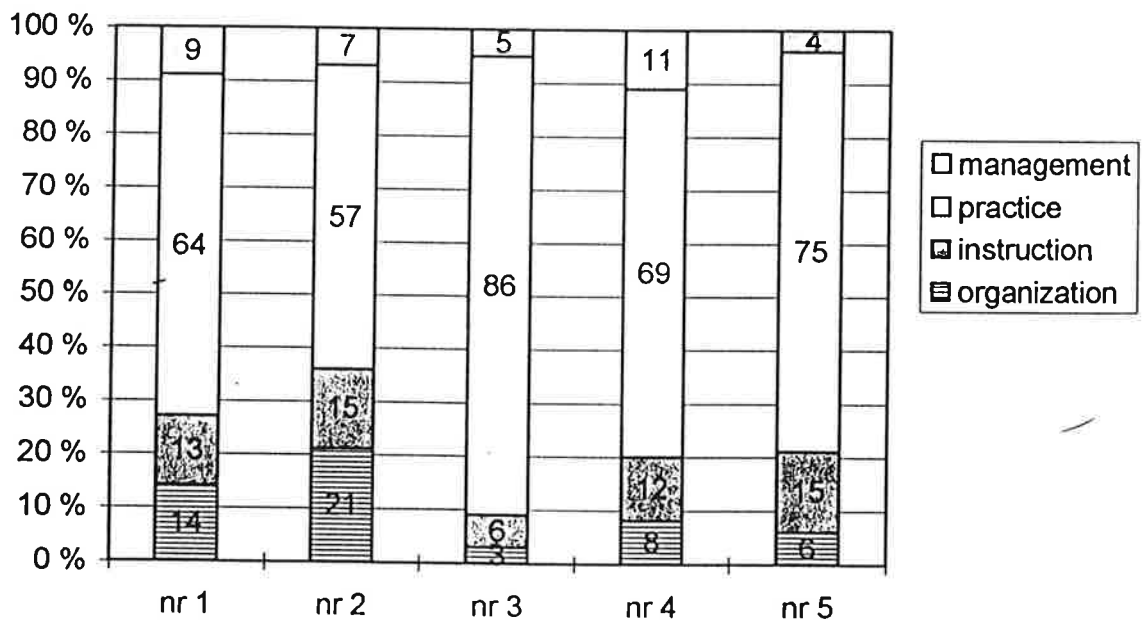


Figure 2. Britta's time distribution during physical education lessons.

A summary of all types of tasks for both teachers showed that they most frequently used extended (38%) and routine (39%) tasks. Informing tasks were used in 21% of all tasks, while refined (1%) and applied (1%) tasks were hardly used. They used many short tasks and an average length for an extending task was 38 seconds. The two teachers monitored children work in 40% of the tasks while they monitored and participated during the rest of all tasks. Children received general feedback in 14% of all instructional tasks.

Figure 3 and 4 show that children worked on stated tasks most of the practice time although at a low intensity during relaxation at the end of each lesson. Waiting time was less than 10% for each teacher. However, one teacher had a problem to control some boys, who showed a lot of deviant behavior. Task modifications occurred seldom and then children increased and decreased task difficulty, avoided tasks, and also made the task more fun. Again, some boys showed most task modifications.

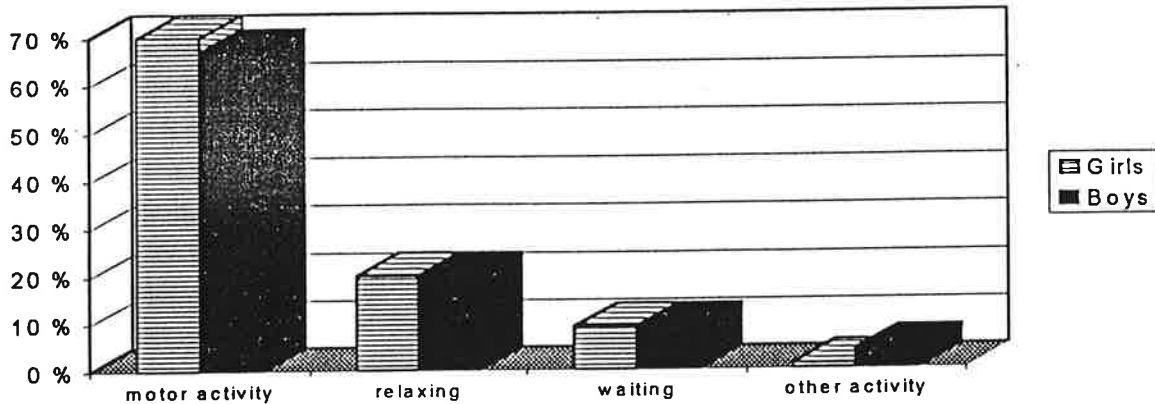


Figure 3. Practice behavior for boys and girls during Annika's lessons.

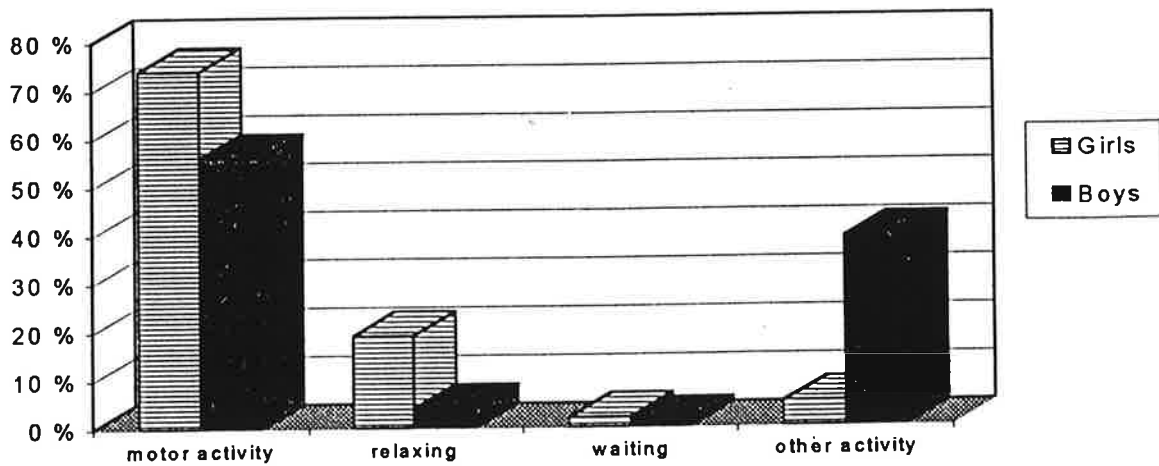


Figure 4. Practice behavior for boys and girls during Britta's lessons.

Conclusions

The teachers in this study provided the children more time for physical activity than teachers in earlier studies (Pieron & Cheffers, 1988; Siedentop, 1991). However, there was a variation among lessons for the same teacher and also between the two teachers, which also has been reported previously (Romar, 1994). The content of movement and music and the context with small groups helped these teachers to keep students active. This is another evidence for maintaining small groups during physical education lessons with young children.

These two teachers in Finnish kindergartens used mostly routine and extended tasks. The use of extended tasks shows that they wanted to improve the children's motor skills. The teachers were not successful in this because they rarely told children how to perform the skills or gave them specific cues. In addition, during children's activity time the teachers monitored the children and similarly participated in 60% of all tasks. Similarly, the lack of specific, correcting- and evaluative feedback made it difficult for the children to know whether they performed a skill correctly or not. This also prevented the children from correcting their effort. In a summary, the two teachers seemed to emphasize activity more than training and learning specific motor skills.

The provided practice time was effectively used by the all children in Annika's groups while boys in Britta's groups changed a great deal of activity time into other activity. The children modified the tasks to the same extent as shown in earlier studies (Jones, 1992), however, boys modified tasks more often than girls. Finally, these results are not to be generalized, instead we need more research on physical education in kindergarten.

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