

# **FUN WITH NORTH WIND!**

## **PHYSICAL-KNOWLEDGE ACTIVITIES FOR 6YEAR OLD PUPILS**

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### **ABSTRACT**

The author developed an activity named “fun with the north wind” as a coursework of the first grade of primary school in winter. Children found the activity interesting, and the activity helped children to cooperate well and to make many scientific findings. The author believes that this activity, “fun with the north wind,” is an effective educational tool for the daily life studies on the point that it helps children develop abilities that the subject aims to. Further, the author argues that this activity is also helpful for children to obtain physical knowledge on the point that, as Kamii and Devries suggest, it enhances children’s interest in science and scientific skill through their own findings.

### **1. INTRODUCTION**

A new subject, “the daily life studies,” has been introduced to the curriculum for the first and the second grades of elementary school in Japan in line with the 1989 revision of the Course of Study. “The daily life studies” is unique on the point that it emphasizes the development of self-initiative, autonomy, and problem-solving ability in children. The introduction of this new subject, however, diminished the opportunities of children in these grades to have physical experiences and learn from them. This shift has necessitated us teachers to forge a new style of teaching that enables first and second grade children to have physical experiences. Schoolchildren in the lower grades learn science through the experiences of interacting with things surrounding them. When teachers provide children opportunities for such interactions, it encourages them to expand their scientific interest and obtain more physical knowledge. As Kamii & Devries [1] argue, achievement of physical knowledge during childhood earlier than the start of science education is pivotal for them to study science including physics later.

### **2. SCIENCE AND SMALL CHILDREN**

Last winter, I introduced an activity to the first grade’s coursework, in which pupils play with toys including kites, windmills and sailing cars that allow them enjoy the power of the north wind. Pupils named this activity, “fun with the north wind.” I found that, through playing with and improving these toys, pupils have learned how to make the toys move better or that the air exists everywhere around them.

The size of my class was forty pupils (20 girls and 20 boys), and all of them participated in the “fun with the north wind” that lasted approximately on month. First, I taught pupils how to make these toys, and then pupils made, played with, and added improvement to the toys. I especially tried to spare much time for the process in which pupils repeat the trial and error so

that they can improve toys to move better. Also, in order to help pupils to exchange their ideas or ask other classmates for advices, I encouraged them, along with direct discussion, to use three kinds of cards that convey their ideas or questions. The cards included “Idea Card”, “Help Card”, and “Explore Card.” After they had achieved a mastery of controlling the toys, the pupils and I invited kindergarteners to “fun with the north wind,” and pupils taught how to make the toys and played together with the young children.

I would discuss how pupils played with the north wind, what they observed, what they found out, and how they explored physical knowledge through this activity. I believe that “fun with north wind” is helpful for children to obtain physical knowledge.

### **3. KAMII’S IMPLICATION TO THIS ACTIVITY**

Kamii and Devries (1993) discussed the importance of activities for physical knowledge, and proposed four essential criteria in the activity. The followings are the four criteria and children’s words that embody each criterion. The words cited here were originally written in the “Idea Card”, the “Help Card”, and the “Explore Card.”

(1) The child must be able to produce the movement in his (her) own action.

“When I ran, it spun well. When I walked, it spun well, too.” (Children ran, walked, and stopped to produce the spinning of the windmill.)

(2) The child must be able to vary his (her) action.

“When I lengthened the string of the kite, it flied well. But when I shortened the string, it didn’t fly well.” (She adjusted the length of the string so that her kite flies well.)

(3) The reaction of the object must be observable.

“I made a sailing car and a bamboo-helicopter for Ken and ran together. Sailing car ran well and the bamboo-helicopter spun well.” (She saw the toys moved well.)

(4) The reaction of the object must be immediate.

“Aiko taught me to make space in the center part of the fan so it spins well.” (She improved her windmill according to Aiko’s advice, and she immediately found her windmill turned to spin better.)

### **4. CONCLUSION**

The findings suggested that “fun with north wind” suits the goal to help children obtain physical knowledge through activity. Through playing, improving toys, and teaching each other, children found that the air exists everywhere around them, and learned how to use aerial energy to control the toys well. Findings also suggested that writing and drawing in the “Cards” to explain their ideas and problems deepened children’s recognition and enhanced their motivation.

### **REFERENCES**

[1]. Kamii, C., Devries, R., “Physical Knowledge in Preschool Education”, Teachers College Press, 1993