

Perception of the Danger of Accidents on the Roads and Experiences of Playing Outside : Elementary and Junior High School Students

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1. Background and Purpose

The danger of the accident lurks on the roads. It is important for the children to notice the danger voluntarily, to understand, to forecast, and to take safe action. It is necessary to improve the spontaneous perception of the danger.

The purpose of this research is to clarify the relations between the perception of the danger and experiences of playing outside. And it is also, to present the safe road environment in children's places.

2. Method

2-1 Participants

Participants were 5th grader of two elementary schools and 2nd grader of two junior high schools in Hikone City.

2-2 Procedure

On school routes, participants took photographs of the dangerous roads that some accidents seem likely to happen and the favorite roads. Later, they wrote their reason on the photographs (two investigations are defined as "the photograph projection method"). And questionnaire survey concerning of playing outside was administered.

3. Results

The number of photographs that were able to be analyzed was 764.

Concerning the dangerous roads, there was the largest number of photographs at the crossroads, and the photographs of the straight roads and the crosswalks are following. Concerning the reason, there were a lot of crowded streets, poor view, and maintenance situations of the signals, the roads, etc.

Concerning the favorite roads, there were a lot of

photographs of beautiful scenery like the rice field and the avenues of cherry trees, etc.

4. Analysis

The photographs of the dangerous roads were analyzed by "quantification method Ⅲ". As a result, it was clarified that the danger of the cars, unexpected danger, and adjacent danger are important factors.

They were analyzed by the cluster analysis. As a result, they were divided into type A (unexpected danger), type B (continuous danger), type C (danger of the cars coming from afar), and type D (other danger).

The result of analysis are shown that participants with poor experiences of playing outside took the photographs of type B and type C a lot, but the photographs of type A were few.

5. Conclusion

When danger is felt on the roads, the maintenance situations of equipment are important criterion for the children. Then, it is necessary to adapt the road environmental maintenance in children's places. At the crossroads, the maintenance of the signals and rugged pavement etc. is effective. On the straight roads, the maintenance of the sidewalks and the use of signs (restriction on entry by car) etc. are effective.

In addition, it is difficult for the children with poor experiences of playing outside to perceive unexpected danger. Playing outside can improve children's spontaneous perception of the danger. It will also help children to pay attention to their familiar environment. The result of this study can tell us that the experiences of playing outside are important for the children.