



DISASTER IMAGINATION WORKSHOP FOR NURSERY SCHOOL LEADERS

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ABSTRACT: To protect small children from big accidents and disasters, nursery school members and related people should imagine their possible disaster situation and share their images, questions and problems. Based on the situation mentioned, we have designed and conducted a Disaster Imagination Workshops (DI-WS) at nursery schools (Abe and Meguro, 2005). Although this DI-WS had been only possible so far in individual nursery school unit due to the limitation of human resources, it became possible with the support of Ms.Yokoya's NPO to conduct a bigger scale DI-WS, making use of their experiences and resources. So, to let DI-WS more popular and to expand its field of application, we designed a new training program for directors and chiefs of nursery schools using DI-WS, and applied it to the competitive bidding of general risk management training program sponsored by Tokyo Municipality Training Institute. Fortunately, as our proposal was received high evaluation and was selected, we carried out our program and examined the possibility of expanding DI-WS approach. Finally, based on the result, we listed up problems for expanding this approach.

Key Words: nursery school, earthquake disaster, imagination, small children, Workshop

INTRODUCTION

Today in Japan, a nursery school is one of the typical places where many small children gather, and the load on adults is very heavy when a big accident or disaster, such as earthquake disaster occurs. There are two important points for nursery school people to protect small children from such disasters. First, each member of nursery school should improve the disaster imagination. Second, members should share their images and experiences with each other.

Therefore, we have designed and conducted a Disaster Imagination Workshop (DI-WS) at a nursery school (Abe and Meguro, 2005). In this WS, the participants first decide the conditions such as season, day of the week, occurrence time, and weather, etc. Then, they start imaging the situation around them as time goes since the hazard attack, and make a story in which they themselves are central figures (Figure 1). In addition, they write down the questions and problems on the memo pads. After writing, they line up their story seats on the table and read each story, comparing along time passage. Sometimes the image of each member is quite different each other. Through this practice, WS members can imagine their possible disaster situation and share their images, questions and problems. With the definition of nursery school leaders as directors of nursery schools and chiefs who help them, we attempted to design a new training program on general risk management for nursery school leaders using DI-WS to expand the field of DI-WS application and let it popular. However, since Japan is an earthquake disaster prone country and leaders are strongly interested in earthquake disaster, as the first

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step of the approach, we picked up earthquake disaster as an example from all risks that we should consider. We designed a training program composed of two Workshops. The first half is Problem Sharing Workshop (PS-WS) concerning all risk issues, and the latter half is DI-WS based on PS-WS. Then, we carried out this program and examined the possibility of expanding DI-WS approach. Finally, based on the result, we listed up problems for expanding this approach and proposed a DI-WS support system.



Figure 1. Disaster imagination tool

DESIGN OF RISK MANAGEMENT TRAINING FOR NURSERY SCHOOL LEADERS

In this chapter, we will introduce today's situation of the risk-management of nursery schools in Japan and the risk management training for nursery school leaders, and explain about the flow of design of the training program.

Risk management training for nursery school leaders

National guideline for nursery school, which was revised in 2008, clearly describes that a nursery school director should take responsibility in matters of safety of children at his/her nursery school. Recently, risk management trainings for nursery school leaders are being held and are executed by the social welfare corporation or the municipality. Medical Doctors, lawyers, risk consultants, NPOs and others related to children's safety give lectures in the training. The lecturer is decided by direct nomination or competition, etc. and training takes several hours to several days. However, support system for feedback for participants after going back to their nursery schools, or the succession of the previous year's training data for next year is not enough yet.

Design of the training program

In order to introduce DI-WS into the training for leaders of nursery schools, we designed training program that includes DI-WS, and applied it for the competition of the 2009 risk-management training sponsored by the Tokyo Municipality Training Institute. The competition was nominated tender, and Ms. Yokoya, one of the authors, her NPO was also nominated. The number of participants expected was about 60, and the time of the training planned was 6 hours.

In this study, in order to let DI-WS more popular, we tried to introduce DI-WS into general risk-management training for nursery school leaders. However, since Japan is an earthquake disaster prone country and leaders are strongly interested in earthquake disaster, as the first step of the approach, we picked up earthquake disaster as an example from all risks that we should consider. We designed a training program composed of two Workshops. The first half is Problem Sharing Workshop

(PS-WS) concerning all risk issues, and the latter half is DI-WS based on PS-WS.

We divided approximately 60 participants into 9 groups composed of 6-7 members. Emcee, facilitation and recording were done by 6 staffs (2 NPO members and 4 postgraduate students). To share information smoothly among participants, basic information of all nursery schools must be understood first. Therefore, we prepared some basic information seats to fill in the number of staffs and children, construction year of school buildings, indoor map, outdoor map, playground map, and map around the nursery school (route to the park, feature around and so on).

In PS-WS, each participant writes past accidents, shivering events, uneasiness, questions and problems freely on the cards. Then, they arrange the cards on a large paper, discussing in each group. Finally, presenter of each group explains about their discussion result to share information as a whole. We designed the cards in order to arrange the data easily after the training.

In DI-WS, we set 5 conditions - weather, seismic intensity, season, earthquake occurrence time and a day of the week, which may change the situation and the correspondence after the earthquake. The disaster imagination can be widely shared in a limited time by imaging different conditions in each group and sharing them with all participants. However, extreme different conditions may cause confusion when they compare their situations. So, in this program, we set a common condition for weather and seismic intensity as "fine and JMA intensity of 6+" among all groups, and different conditions for season, earthquake occurrence time and a day of the week.

RESULTS OF THE PROGRAM

The program we designed received high valuation and was adopted by the Tokyo Municipality Training Institute, and we carried out the program in August, 2009 (Photos 1, 2, 3 and 4). This chapter describes the result of this training program.



Photo 1. Participants



Photo 2. Staffs (2 NPO members and 4 postgraduate students)



Photo 3. PS-WS



Photo 4. DI-WS

In PS-WS, participants wrote 304 cards (accident: 102, shivering event: 119, uneasiness/questions/problems: 83). The risk described in the cards varied in topics such as earthquake, accident, suspicious person invasion, allergies, and bees, etc. The number of cards collected concerning earthquake was 21 in PS-WS and 77 in DI-WS. When we compared PS-WS and DI-WS, problems written in DI-WS were more concrete and specific than those of PS-WS (Figure 2). During presentation time in DI-WS, presenters explained peculiar contents due to the conditions of his/her group to understand the difference of the situation by different condition (Table 1). We arranged the cards and the stories, and analyzed the contents according to the type of danger or various characteristics of parties and so on, and applied to design of the support system.

The 38 questionnaires of participants' impressions were broken down into 3 categories – 22 were positive such as “I felt that the training under the various conditions are necessary”, 11 were negative such as “Time was limited”, and 5 were both. Most of negative answers concerned about the time scheduling. In the training, the discussion time exceeded 25min-40min than that of what we had expected. Therefore, we had to shorten the time of lecture and presentation (Figure 3). We will redesign the time schedule of the training based on this result.

Table 1. Setting condition and content of the presentation of each group

	Season Day of the week Occurring time	Situation when the earthquake occurs	Contents (Extracts)
1	summer weekday 8:00	going to work	•How to contact with the parents?
2	summer weekday 10:00	Taking care of children	• The tasks changes according to the standpoint. The nursery school leaders should think about the whole matters, and the other teachers should take care of children's mental aspect.
3	winter weekday 10:00	Taking care of children	•Can we serve warm meals? •Because it is cold, small children cannot refuge in clothes alone .
4	summer weekday 12:00	Eating lunch /brushing teeth /children taking a nap	•Tableware may be scattered •I'm worried about the heat under hot weather.
5	summer weekday 14:00	Children taking a nap, adults taking a break	•Can I understand the whole situation at once? Some of the staffs are taking a rest.
6	summer weekday 16:00	Taking care of children (inside and outside)	•Check the injured children.
7	winter weekday 16:00	Taking care of children	•There is fear of a fire because we use the stoves.
8	summer weekday 18:00	Shifts to the overtime childcare	•Correspondence is difficult because of the time zone shifting to night. •How can we respond by few people?
9	summer holiday 16:00	Few people are taking care of children /at home	•How can we respond by few people? •If parents' offices are far, pick-up might be next day.

PS-WS (Problem Sharing Workshop)	
When a big earthquake occurs, can nursery school teachers really move and protect the children?	
↓	
DI-WS (Disaster Imagination Workshop)	
30sec later	Is my house OK? Do fires occur? How about the neighborhood of my house?
5min later	I should go to nursery school, but are families all right?
20min later	Can I bring my mobile phone out of my house? Can I contact with my husband?
1hour later	Usually it takes 7 minutes by walk to the nursery school, but I'm worried about the road condition.
2hours later	Is the building of the nursery school all right? Isn't there any child who has been injured?
others	I should think about the toilet and the meal.

Figure 2. Example of problems

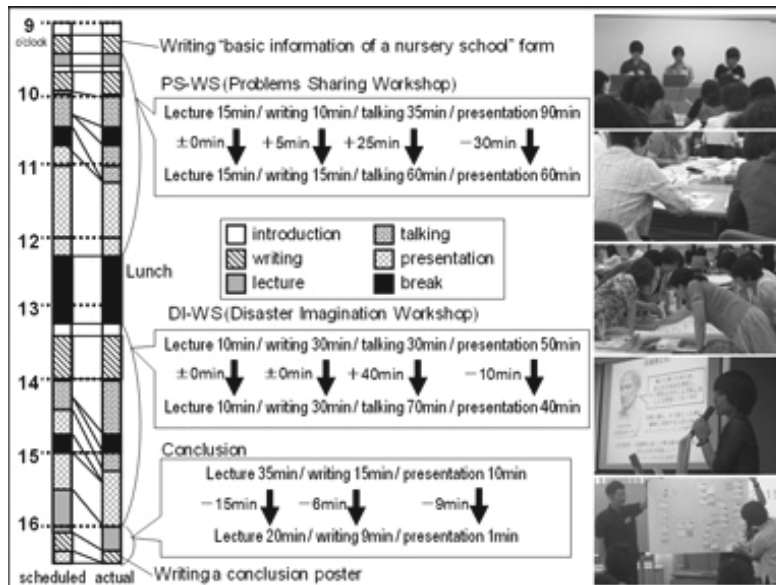


Figure 3. Program (scheduled/actual)



Photo 5. DI-WS in a nursery school

From the questionnaire survey, we found some motivation, such as, "I want to download the writing form of DI-WS". Moreover, after the training, we got mails from some participants that "we want to do DI-WS in our nursery school", and three nursery schools did DI-WS (Photo 5). It shows possibility that DI-WS in the training for the leaders of nursery schools may lead to the DI-WS in nursery schools.

Based on the situation explained above, we could conclude that there is the high possibility of expanding the field of DI-WS approach by introducing DI-WS into risk management training for nursery school leaders.

PROPOSAL OF THE DI-WS SUPPORT SYSTEM BASED ON THE RESULT OF THE TRAINING

For establishing a new DI-WS system in risk management training for nursery school leaders, it is necessary to build the Workshop support system. First of all, it is necessary to improve contents and time schedule of current DI-WS and prepare the DI-WS training set by which nursery school members can carry out Workshop based on their characteristics by themselves smoothly. Moreover, to answer the participant's question in Workshop, the lecturer should know the knowledge on the life patterns of the nursery school members, as well as on disaster mitigation. Therefore, a support system to get information and hints listed below is necessary.

- Various information which helps carrying out DI-WS
- Hints for solving questions and problems arisen from DI-WS

The system will be designed based on the data obtained from the DI-WS. For updating the system, we will add the lessons learned from past disaster and accidents, and knowledge and comments by specialists, and data from the future Workshops. In the future, we will deal with the other risks besides earthquake disaster risk, and make the support system for nursery schools by which they can manage their total risks by improving their risk imagination.

CONCLUSIONS

In this paper, we attempted to introduce a Disaster Imagination Workshop (DI-WS) into risk management training for nursery school leaders. As the first step of the research, we picked up earthquake disaster as an example from all risks that we should consider. We have designed a training program composed of two Workshops. The first half is Problem Sharing Workshop (PS-WS) concerning all risk issues, and the latter half is DI-WS based on PS-WS. Then, we carried out this program and examined the possibility of expanding DI-WS approach. Finally, based on this result, we listed up problems for expanding this approach and proposed a DI-WS support system. In the future, we will collect more data for the support system by conducting WSs and hearing surveys.

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