

Development of the Street Dance Drill for Disaster Prevention Education

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ABSTRACT:

This paper is intended as an investigation of synthetic education to Disaster Management for the Next Great Earthquake and Tsunami. Two points need to be made. The first is continuation. The second is effectiveness. Pursuing these questions, we almost reach the core of technique for Disaster Management Education. So the purpose of this paper is to study as Disaster Management Education. The authors showed technique of "pleasant Disaster Management" as a subject in a Disaster Management Training. One is Evacuation Game; the other is Street Dance for Evacuation. The following results were obtained: Our Disaster Management Training is effective. Reflection on some of these will make clear that Disaster Management Education should continue if you expect an education effect.

KEYWORDS:

Disaster Management Education, Evacuation Game, Street Dance, Text Mining Method

1. INTRODUCTION

Many engineers were devoted to elucidation of mechanism about earthquakes and tsunamis. Therefore, technology of this field continues progressing. On the other hand, so far the study of Disaster Management Education has been superficial. The authors are convinced that the effective disaster prevention measures should satisfy both of the above.

The purpose of this paper is to consider new styles of Disaster Management Education. Chapter 2 surveys Disaster Management Education which we carried out in Tokushima with special emphasis on training techniques to escape from danger by earthquakes and tsunamis. Chapter 3 analysis education effects presented Chapter 2. Chapter 4 shows conclusion.

2. SHORT REPORTS ON OUR DISASTER MANAGEMENT EDUCATION

Till now, we have been supporting schools against their Disaster Management Education in Tokushima from 2003. The total of schools came to 23, a nursery school, a kindergarten, 7 elementary schools, 6 junior high schools, 4 high schools, 2 schools of physically and mentally handicapped children, and 2 universities. We used questionnaire to them and measured consciousness / knowledge difference by their experience of disaster management educations results by Kurosaki et al (2007). The subject is too prolonged to be discussed here in detail but, in short, the authors discovered that the methods which students, including pupils were ready to learn about Disaster Management.

In Japan, many schools give training to escape from danger by natural disaster about once a year or twice. And after in this paper, I will use the term 'training' to refer to the training just mentioned. We developed new style training. It is the imagination game that students take refuge from a tsunami after they became a victim of an earthquake. The following are two random examples of training: one is the evacuation game for victims and another one is the Street Dance choreography that arranged a refuge method.

2.1 Evacuation game

Tokushima newspaper publishing company, Tokushima City social welfare conference, RCMODE group of the Univ. Tokushima developed this game jointly. It is supposed that an earthquake has been given, and makes the evacuation training if they become a physically handicapped person. For example, you did a blindfold (Photo 1.), fixed one leg, fixed both arms, and you do obstacle race that simulated an evacuation route. The aim of this game is to understanding difficulty of refuge and understanding to a handicapped person. In other words, Students understand importance of an independent spirit and the cooperation spirit. In addition, progress of a game is as follows;

- 1) I form a group of five members in my class. And this group represents family.
- 2) Students decide there obstacle by drawing lots in each group. In other words they have been hurt by an earthquake disaster. For example, a visual impairment, the one leg or both arms damage, a hearing impairment, and a last student with non damage.
- 3) Start to intergroup obstacle race under these conditions. A lot of obstacles represent rubble and liquefaction ground on a refuge course. And they vied with other group express a family took refuge from a tsunami earlier than anyone.
- 4) Participants perform a workshop with all the members after obstacle race. The reason is because it gathers up what learned through this game.

We carried out this game to four junior high schools. The students who participated had the opinion "the person who cannot move should have helped", "Blindness is fearful" and so on. In addition, students carried out actively because a rule is simple and this game is pleasant for them.



Photo 1. Evacuation Game

2.2 Street Dance choreography for Evacuation

A movie "Flash Dance" became a topic in 1983, and a street dance was brought into Japan. "Dance" got citizenship in an instant; we can see the figure of the youth who danced became ordinary around the night station square, schools, and so on. Street Dance choreography for Evacuation is the technique that the first author developed. Because, when I was a student, I was a professional dancer and choreographer of Street Dance. Street Dance is very famous and high popularity among young people in Japan. However, evacuation training is unpopularity among young people in Japan. So I devised a method and a procedure of Evacuation training using Street Dance.

Generally, Street Dance are the general term of dances such as "HIP HOP" "BREAKING" "HOUSE" "LOCKING". Street Dance for Evacuation put these four kinds of dances together and constituted the refuge action that became important based on non-fiction stories at the time of a disaster. As for me, around 40 kinds made Street Dance for Evacuation depending on ability for age / Physical ability / a kind of disaster. I carried it out in two Senior High Schools, two Junior High Schools, three elementary schools and the University of Tokushima. I show below choreography examples and blow of overleaf is a series of three Photos illustrating choreography;

- 1) Squat and protect a head after earthquake occurred.
- 2) You crawled under desk and grasp legs of the desk (photo 2, left).
- 3) Pull yourself together. Because you are in danger when upset.
- 4) Put off fire. It is for fire prevention.
- 5) Open the door or window. You secure a refuse course.
- 6) You shouldn't go back, never. You don't return to take valuables.
- 7) Careful to aftershocks.
- 8) You drop a breaker. It is important that you must prevent of an electricity fire.
- 9) You go to an exit (photo 2, center).
- 10) Wear shoes (photo 2, right). You have to prevent an injury of a foot.
- 11) If you go out you protect a head. Be careful in your head.

In addition, these procedures express a turn before taking refuge after an earthquake occurred. The point I want to make is that the training is nonsense if teachers and students not continue it. And it is important things for continue that they enjoy it.



(1) Grasp leg of a stool



(2) Take refuse



(3) Wear shoes

Photo 2. Choreography of Street Dance for evacuation

3. RESULTS

Massachusetts Institute of Technology compiled guide "Teacher and Student". In this guide, there are three education elements, 'understand', 'remind' and 'consider'. But this is a classification for a university student. So the authors should have added 'induce' to above for children [the word of 'children' is intended for an elementary school student and a junior high school student after in this paper].

We had collected comments of children after training, and analyzed their comments with text mining method. And I classified their impressions as a table 1. For example, if it is opinions of fun, interesting, trying and the like, I classify it as induce. Fearful, studying, understood, classify it as understand. If they said 'without my knowledge', 'underestimated the disaster' and the like, I classify it as remind. 'Thought about it', 'Careful with it', 'Want to begin it for a disaster', classify it as consider.

The results are presented in Figure 1. and Figure 2. As the both Figures indicate, Street Dance for Evacuation [S.D.] gets highest point at 'induce'. Evacuation Game [E.G.] includes a lot of 'understand' and 'induce'. But these techniques have no 'remind' because of children have little experience. On the other hand, we can see 'remind' in Figure 2 which shows a result of high school students using a map exercise. From this result two general points become clear: One, a map exercise is aimed to 'remind' and 'consider', another is high school students more experience than children.

Figure 3 shows results of effect for teachers. There is an increase in the number of schools where Disaster Management Education is carried out. Square mark shows the number of schools that teachers carry out. And circle mark shows the number of schools that our enforcement. In this graph, red mark includes black mark. Red one is steep rise after 2005. On the other hand, black one is a slight increase under 2007, and now, there is a rapid drop. But this is just the thing that we aimed. Because this trend is the evidence that school teachers have begun to do Disaster Management Education. The authors think that Disaster Management Education continued

if teachers have begun to do it with themselves.

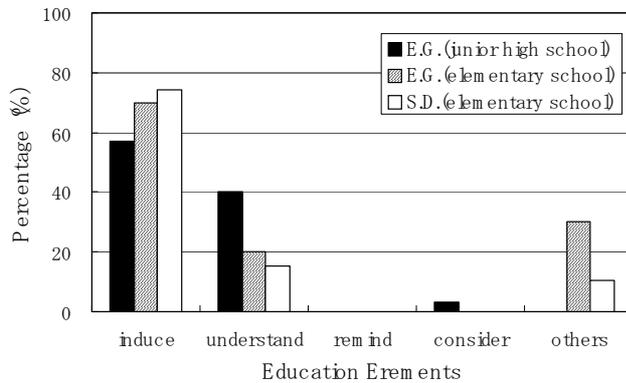


Figure 1. Comments of children

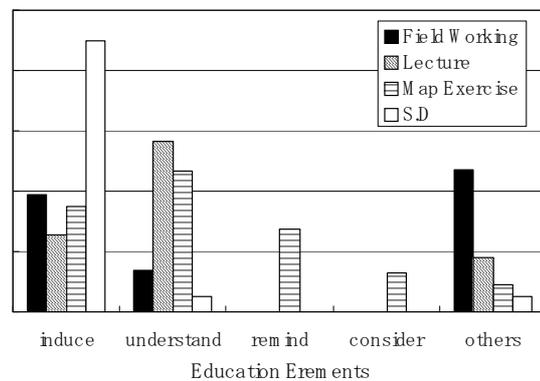


Figure 2. Comments of high school students

Table 1. How to text mining

induce	fun, interesting
understand	fearful, studying
remind	'without my knowledge' 'underestimated the disaster'
consider	'thought about it' 'careful with it'

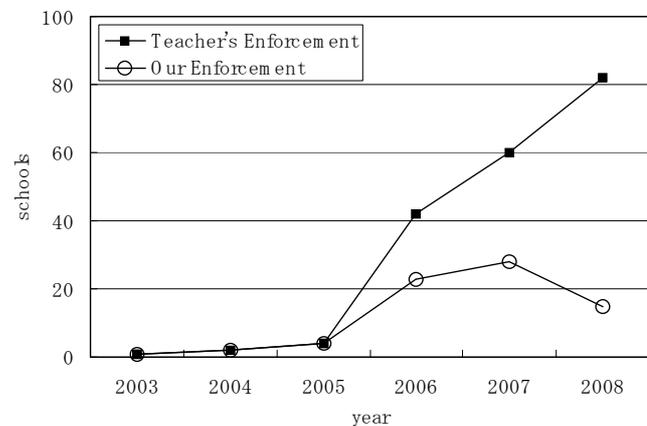


Figure 3. Effect for teachers

4. CONCLUSION

In conclusion, (1) we shows new style training of Disaster Management; (2) Evacuation game and Street Dance for Evacuation get high point about 'induce' and 'understand' but no point about 'remind' because of children have little experience; (3) 'remind' appeared only technique of a map exercise because of this technique is aimed to 'remind' and 'consider' and high school students more experience than children. Reflection on some of these will make clear that Disaster Management Education should continue if you expect an education effect. And Disaster Management Education continued if teachers have begun to do it with themselves.

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