

PROPOSED A PRACTICAL TRAFFIC SAFETY ACTIVITY USING HIYARI MAP DEVELOPMENT IN COMMUNITY OF THAILAND

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1. Introduction

In developing countries, the number of fatalities increases rapidly. Therefore, some engineering measures such as improvement of road design through road safety audit are practiced in each country. And the regulation and enforcement of traffic rules also have been improved. However, measure for rising traffic safety awareness which is crucially important for traffic safety is not always practical. Thus, introducing Japanese experiences may be useful for helping to raise traffic safety awareness. In the past, we have practiced traffic safety activities using Hiyari map development in the community of Thailand for raising traffic safety awareness and identifying potential black spots. This paper introduces the experiences and discusses the possibility for practicing these activities in other developing countries.

2. Proposed Traffic safety activity

In Japan, Hiyari map development workshop has been practiced in communities for rising awareness of traffic safety and identifying potential black spots. Hiyari map development workshop is easily to adopt and anyone can join that is why this activity is popular and help improving traffic safety in Japan. We think that Hiyari map development is useful for traffic safety activity in Thailand and thus, proposed the approach of traffic safety activity using Hiyari map development in community of Thailand. As shown Fig.1, first, leaders for the Hiyari map development workshop are sought through organizing an initial workshop or introduced by local coordinators. Their roles involve organizing the Hiyari map development workshop, such as preparing the venue, calling participants, and moderating the session. Second, the Hiyari map development workshop is organized in community. The target group of the workshop includes local people in the community or students. Local people and students gather together to think about traffic safety through joining workshop which include developing Hiyari map in community, introducing participant's Hiyari experiences

(potential accident experiences) and visiting Hiyari spot (potential black spots). Their traffic safety awareness will be raised. Third, information and data about Hiyari spots and Hiyari experiences are collected and inputted into a database and analyzed. Measures for improving potential black spots are planned by using this Hiyari data and are implemented, evaluated, improved measures and planned again by local people and local government officials. Traffic safety awareness of local people should gradually be raised by continuing these traffic safety activities.

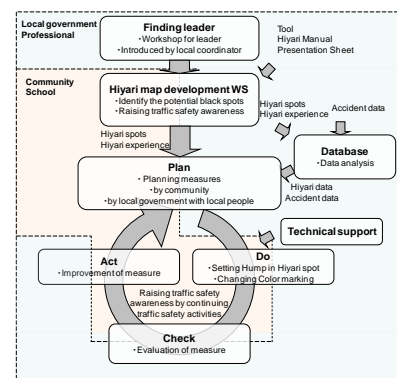


Fig.1 Approach of traffic safety activity using Hiyari map development in community of Thailand

3. Practice of Traffic safety activity

Traffic safety activity using Hiyari map development was introduced in Udonthani, Samutprakarn, Khon Kaen and Chiang Mai.

(1) Finding leader

In Udonthani and Samutprakarn, we organized workshop for finding leaders. As participants, we invited local policeman, local government officers, teachers and so on. Some participants interested this activity and played leader of Hiyari map development workshop in community. In Khon Kaen and Chiang Mai, some community leaders and university teachers were introduced by local coordinator to hold a traffic safety activity.

(2) Practical Hiyari map development workshop

There were 8 Hiyari map development workshops were organized in community and school. Details of workshops are shown in Table 1. Fig.2 shows evaluation of Hiyari

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map development by participant. It shows almost participants could join workshop activity and could understand purpose of workshop. Fig.3 shows evaluation about raising traffic safety awareness. It shows that at least their traffic safety awareness was raised. Fig.4 shows the problems of organizing Hiyari map development workshop by opinion of participant. About 70 % of participants answered “cost.” Therefore, financial support or tool support is needed for organizing workshop.

Table 1 Details of Hiyari map development workshops

	Target Area (Square measure)	Date Place	Participant	Sex of participant	Age of participant	Number of Hiyari experience	Number of Hiyari spot
in community	Around Pithayamkhun High School in Udonthani (5km ²)	2006.2.25 Auditorium on Pithayamkhun High School	17 local people	Male:13 Female:2	20-59.3 30-39.3 40-49.2 50-59.2 60-69.1	C: 118 M: 131 F: 72 Total 321	C: 72 M: 76 F: 46 Total 110
	Nongbua community in Udonthani (7.5km ²)	2006.8.9 Assembly hall in community	14 local people	Non	Non	C: 86 M: 51 P: 53 Total 190	C: 36 M: 25 P: 22 Total 83
	Kaakbha community in Khon Kaen (Khon Kaen municipality) (2km ²)	2006.9.6 Assembly hall in community	16 local people	Male:5 Female:11	30-39.4 40-49.6 50-59.3 60-69.2	C: 103 M: 126 P: 90 Total 319	C: 28 M: 34 P: 29 Total 91
	Kaakbha community in Khon Kaen (Mueangka county)(0.5km ²)	2006.11.27 Assembly hall in community	23 local people	Male:12 Female:3	30-39.1 40-49.5 50-59.7 60-69.6	C: 205 M: 193 P: 249 Total 647	C: 43 M: 45 P: 49 Total 137
	Khon Kaen University (10km ²)	2006.9.5 Meeting room at University	18 students 11 guards Total 29 persons	Male:20 Female:7	10-19.1 20-29.17 30-39.1 40-49.4 50-59.3	C: 178 M: 258 P: 63 Total 497	C: 57 M: 70 P: 27 Total 154
	Khon Kaen University (10km ²)	2006.11.28 Meeting room at University	36 students	Male:24 Female:10	10-19.6 20-29.16 30-39.6 40-49.5 50-59.1	C: 371 M: 448 P: 177 Total 996	C: 88 M: 111 P: 68 Total 267
	Nongbua community in Chiang Mai (0.5km ²)	2007.11.26 Assembly hall in community	24 local people	Male:13 Female:9	30-39.1 40-49.10 50-59.7 60-69.5	C: 178 M: 136 P: 155 Total 469	C: 32 M: 35 P: 38 Total 105
	West area in Samutprakarn in school (20km ²)	2006.8.11 HONDA Safety Riding Center	30 students of junior high school	Male:29 Female:1	10-19.30 20-29.3	C: 113 M: 183 P: 134 Total 430	C: 70 M: 98 P: 67 Total 235

C:Car driver, M:Motorcycle driver, P:Pedestrian

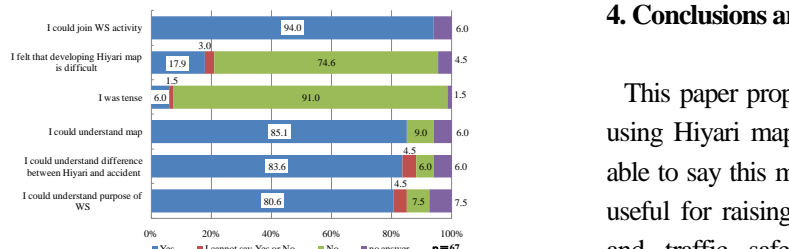


Fig.2 Evaluation of Hiyari map development workshop

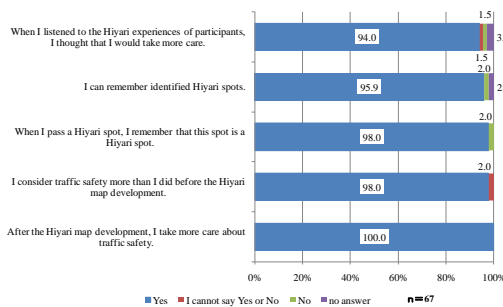


Fig.3 Rising traffic safety awareness of participant

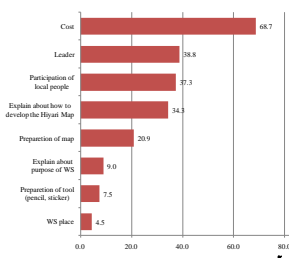


Fig.4 Problem issue of organizing Hiyari map development workshop

(3) Continual traffic safety activity after the Hiyari map development workshop

The collected information from Hiyari map development workshop was inputted as GIS database and feedback this information to community for sharing with local people.

We have organized a main conference. Thirteen leading participants of all Hiyari map development workshops in Thailand joined this conference. They reported their experiences of their own workshops and community activities after the workshops. The purposes of this conference were to ask about the effectiveness of Hiyari map development workshops and to motivate participants regarding traffic safety. According to their report, three communities continued traffic safety activity by themselves such as practicing traffic safety parade and setting humps or traffic light in Hiyari spots. On the other hand, some community did not continue traffic safety activity. We found reasons of continuing traffic safety activity in three communities are that the leaders of Hiyari map development workshop was strong leader like a police man or local government officer.

4. Conclusions and Further Works

This paper proposed and practiced traffic safety activity using Hiyari map development in Thai community. It is able to say this method is applicable in community and is useful for raising traffic safety awareness of participants and traffic safety activity were continued in some community after the workshop.

In addition, we identified that 70 % of participants thought that problem of organizing Hiyari map development workshop is “cost.” Therefore, financial support or tool support is needed for organizing workshop in community. For raising traffic safety awareness, continuing traffic safety activity is important. Therefore, support for improvement of Hiyari spots by professional is needed. Hiyari map development is easily activity and could be practiced by Thailand people. Thus we think that this activity is useful for traffic safety education in school of Thailand. We need to propose system for education and to develop manual for activity in not only in Thailand, but also in other Southeast Asian countries, such as Vietnam, Lao PDR. The problem about traffic accident is really serious. We will continue to introduce this activity and practice it in these countries as well.