

# An Experimental Study on the Multigenerational Workshop for Sustainable Society

IAIA 24<sup>th</sup> Annual Conference  
28 April 2004 Vancouver, Canada

Shigeo Nishikizawa\*, Katsuyoshi Tanaka\*\*  
Sachihiko Harashina\*

\* Tokyo Institute of Technology

\*\* Toyohashi City

# Viewpoint and Objectives

## Viewpoint

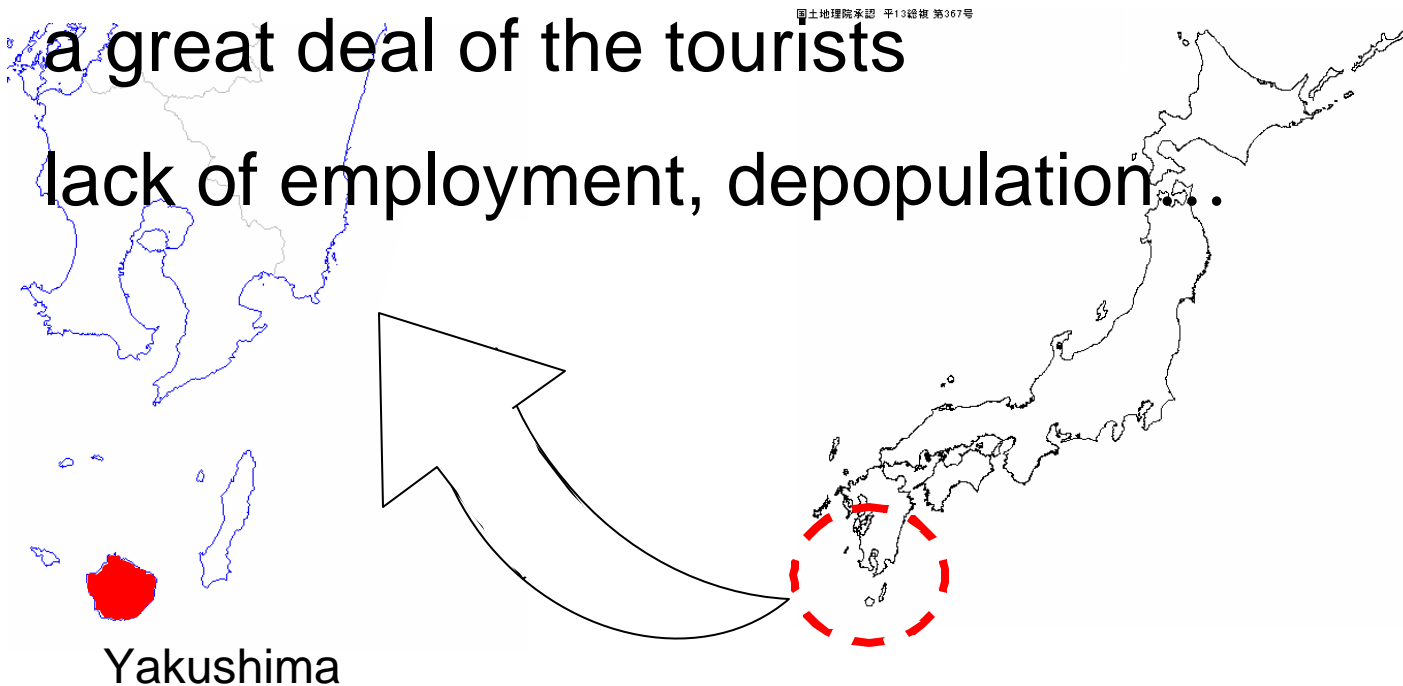
- Public Involvement
- Participation of Future Generations
- Future Generations have hardly any opportunities

## Objectives

- The place for discussion between children and adults
- Multigenerational Workshop
- Clarify the effect of Multigenerational Workshop

# Case of this study: Yakushima

- Located in the south of Japan
- World Natural Heritage since 1993
- 503 square kilometers, 14 thousand people
- a great deal of the tourists
- lack of employment, depopulation...













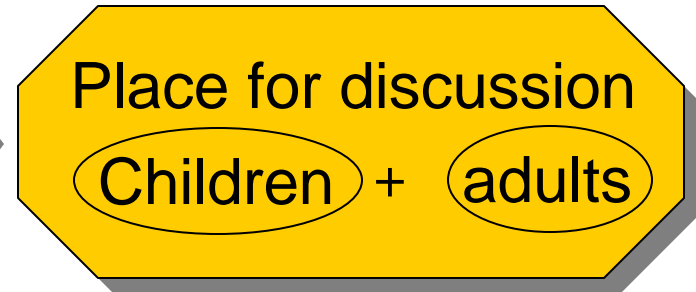




# Framework of Analysis

## Objectives:

Clarify the effect of the  
Mutigenerational workshop



## Analysis:

The analysis of WS productions clarify...

- contents of shared information
- effects of mutual communication

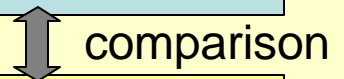
The analysis of questionnaires clarify...

- differences of the awareness between adults and children
- changes of their awareness

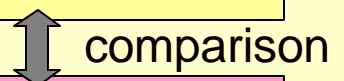


Experimental  
workshop

Children group



Mixed group



Adults group



# Division of the groups

Areas/ Date	Group 1	Group 2	Group 3	Total
Junior high school North Yaku-chou	Children group	Children group	Mixed group	25+[5]
9/29, 11/9	10	10	5+[5]	
High school North Yaku-chou	Children group	Mixed group		15+[5]
10/5, 11/3	10	5+[5]		
Junior high school Yaku-chou	Children group	Mixed group	Adults group	17+[14]
10/6, 11/10	11	6+[4]	[10]	
Total	57+[24]			

[] (square bracket): the number of adults

# Design of the workshop

## 1<sup>st</sup> Meeting

Sep.-Oct. 2002

Perceive the value of the Nature

Re-understanding of Yakushima through the Nature Games

Discuss with relation the Nature and their life

Considering by Brain Storming

An interval of nearly one month

## 2<sup>nd</sup> Meeting

Nov. 2002

Discuss with current state about industry in Yakushima

Understanding by provided information and Considering

Propose the “Yakushima tours” as future tourism

Making a group proposal





# Contents of Opinions (1<sup>st</sup> meeting)

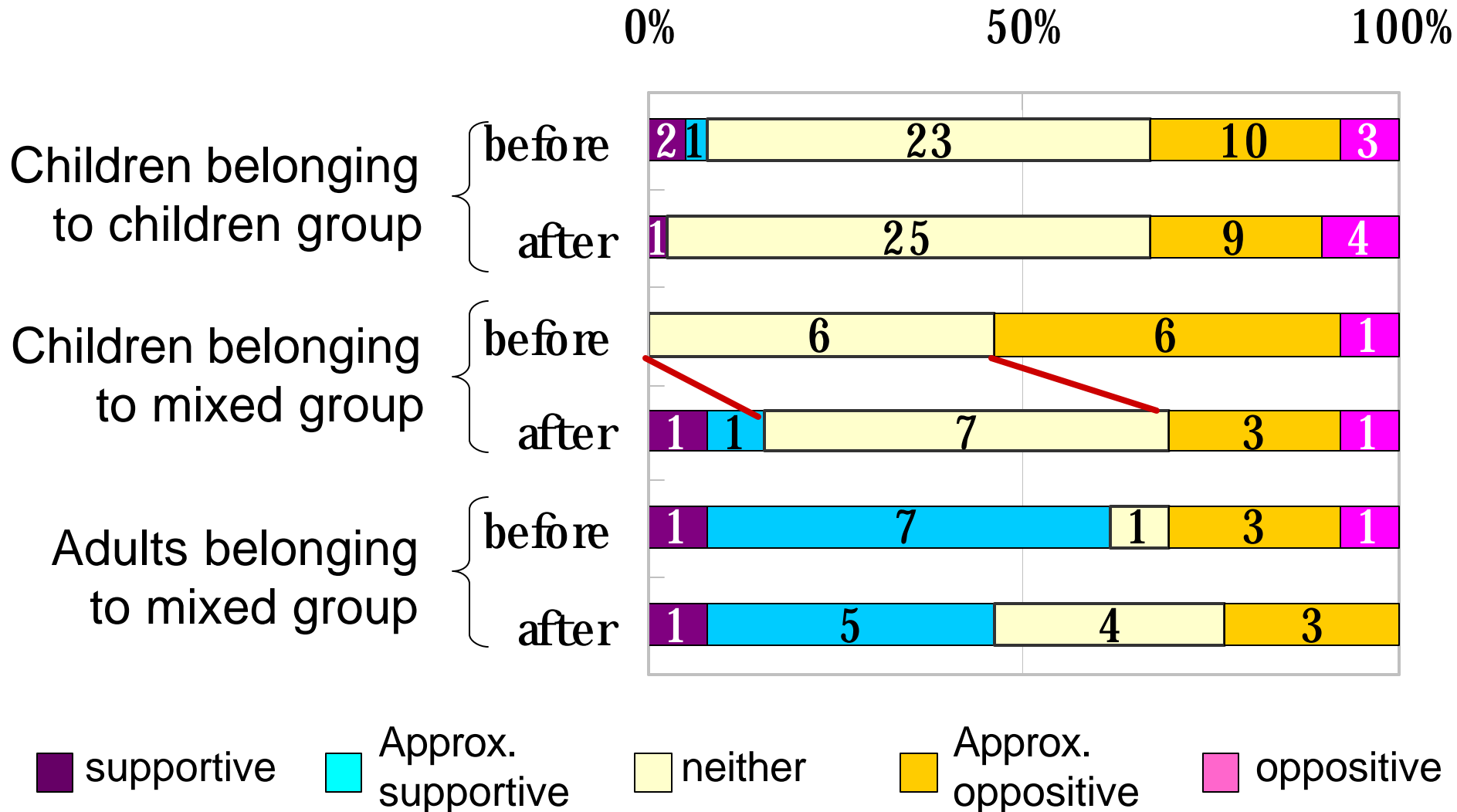
Content		Content in Detail	Opinion			Total
Natural env.	Rich of the Nature	Beautiful sea, mountain, river	64	181	257	562
		Various Recreations	22			
		High quality water and air	72			
		World heritage, etc.	23			
	Animals and Plants	Rich variety	47	56		
		Harm by monkey	9			
	Weakness	Handicap of climate	9	12		
		Natural disaster	3			
	Crisis of the Nature	Violation of the Nature	8	8		
Econ./ Social env.	High price, Lack of commercial facilities	High price	39	80	305	
		Inconvenience of shopping	41			
	Dissatisfaction of the traffic system	Dissatisfaction of public traffic	31	59		
		Inconvenient accessibility	10			
		Road, etc.	18			
	Social system	Depopulation	10	137		
		Defectiveness of social system	15			
		Waste problem	112			
	Satisfactory respect	Kindness, rich of food culture	29	29		

# Types of Opinions (2<sup>nd</sup> meeting)

Industry		The number of opinions			Example of opinions
		Children Group	Mixed Group	Total	
Agriculture	Voting				
	137	<div><div>812</div><div>0</div></div>	<div><div>35</div><div>6</div></div>	34	?Type3?Farm Tourism(2) ?Type3?Promoting chemical free farm products
Forestry	Voting				
	67	<div><div>37</div><div>0</div></div>	<div><div>34</div><div>2</div></div>	19	?Type2?Difficulty to cut more trees ?Type3?Promoting a project of preserve(4)
Fisheries	Voting				
	69	<div><div>79</div><div>0</div></div>	<div><div>25</div><div>0</div></div>	23	?Type2?Exhaustion of the ocean resource ?Type3?Processing for oneself
Tourism	Voting				
	114	<div><div>710</div><div>2</div></div>	<div><div>99</div><div>4</div></div>	41	?Type1?Activation of the island ?Type3?Standardization for quality of eco-tour guidance
Construction	Voting				
	27	<div><div>213</div><div>0</div></div>	<div><div>05</div><div>4</div></div>	24	?Type2?Useless projects(4) ? Destruction of environment(3) ?Type3?Public residence by Japanese cedar cut in this place
Others	Voting				
	32	<div><div>37</div><div>0</div></div>	<div><div>16</div><div>0</div></div>	17	?type2?lack of public servant ?type3?Promoting renewable energy
Subtotal	Voting				
	446	<div><div>3058</div><div>2</div></div>	<div><div>1834</div><div>16</div></div>	158	<div><div>Type1Type2</div><div>Type3</div></div> = <div><div>situation (positive)situation (negative)</div><div>Idea of measures</div></div>
Total		90	68		

# Opinion changes of children

## To Reduce the public constructions?





# Satisfaction level of the participation

Evaluation items (After the workshop)			Mean**		a***	
			child	adult		
General evaluation	Q1	Workshop	0.61	0.50	0.204	
	Q2	Nature game	0.73	0.50	0.048	?
Opportunities to remarks	Q3	Easiness to remark	0.56	0.47	0.458	
	Q4	Using labels(KJ method)	0.63	0.61	0.822	
Proceeding	Q5	Schedule of discussion	0.38	-0.04	0.017	?
	Q6	Facilitater(nature game)	0.63	0.44	0.193	
	Q7	Facilitater(discussion)	0.66	0.47	0.139	
	Q8	Theme of the workshop	0.58	0.44	0.189	
Effect of communication	Q9	New recognition	0.38	0.57	0.045	?
	Q10	Changes of awareness	0.13	-0.04	0.191	
	Q11	Mbtivation to participate	0.68	0.58	0.229	

# Conclusions

- 1 ) A lot of multiple opinions which are produced by the participants has been gradually cleared as well as shared among the different generations through the workshop .
- 2 ) While children tend to complain of their environmental situation, some of children who belonged to mixed group suggested some alternatives .
- 3 ) Some of children belonging to mixed group changed their awareness such as judgment for reduction of public constructions through the interactive information exchange .