Validity of Community Planning Techniques using a Web Survey that Considers Voluntary and Flexibility of Participation

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ABSTRACT

Workshops and discussions on the community planning process and visions for the future have progressed with the cooperation of the administration, citizens and specialists. However, they require a technical proof. For this reason, it is difficult to achieve a standard, whereby city dwellers are satisfied. In this study, the Delphi method was selected as a support tool, and an attempt was made to grasp the intentions and interests of city dwellers. Then, the community planning process was applied by using the Delphi method for urban areas with sparse identification. Participants were residents and commuters in the target areas. Categories were 'environment', 'community' and 'cultural sensibility'. For reducing the cost and time taken by investigators, and to enable those living in the community to participate in voluntaries and flexibility, we used a web survey as an investigation method. As a result, we could express the regional characteristics, problems and community planning intentions of city dwellers. The results suggested the validity of web surveys in regional evaluation, and explained the visions for the future and response attitudes, as well as the existence of a new identification that gives consideration to voluntary and flexibility of participation.

Key Words: Community Planning, the Delphi Methodology, Voluntary, Flexibility, Identification

Ⅰ. Objectives

In community planning, workshops and discussions with the administration, citizens and professionals are often repeated. However, it is difficult to achieve a standard[1], whereby participating citizens are sufficiently satisfied[1]. This is because urban areas in Japan are standardized improving urban infrastructure, and community activities for the realisation of a common image are difficult[1]. In addition, when the working area is Tokyo, community identification[2] takes the form of 'passive affection' or 'apathy'[3]. In this study, the Delphi method was chosen as a support tool for an attitude survey, which was used to obtain information. Then, the city dwellers' community planning intentions and concerns were grasped, and a community planning process was designed with a high level of voluntaries and flexibility of participation, and its validity was discussed.

Ⅱ. Methods

1. Considering a Community Planning Process using Voluntaries and Flexibility of Participation

1) Considering support tools used in the community planning process

While selecting support tools, we considered two conditions. According to one condition, not only would opinions be aggregated but the previous results would also be presented, and would give city dwellers some chance to re-think community planning. Another was to encourage the interest in, and concern about, community planning among as many city dwellers as possible. In applying the Delphi method, Helmer from Rand Corp. used the outstanding intuition of professionals to make forecasts(Gordon et al. 1964)[4]. This method is widely used in fields such as technological forecasting. A

survey is repeated several times by professionals, who judge its content. Then, the aggregated results are presented as feedback to the professionals, who participate in the survey. This process enables appropriate professional judgements[5,6,7,8]. Since then, we determined that the Delphi method is appropriate for realising a common image in urban areas with the standardized urban infrastructure.

2) Considering survey methods used for the improving the community planning process

Under the Delphi method, a questionnaire survey is usually repeated multiple times using mail surveys. Social survey environments such as mail survey worsen steadily[9]. The reasons behind this are:(1) perusal limits on the basic register of residents;(2) increases in survey costs;(3) refusal responses; and(4) the difficulty in securing participants[7]. In the present study, a web survey was adopted. The advantages of this were:(1) the possibility of conducting an extensive survey;(2) the low costs involved;(3) the ease of getting at the truth; and(4) the possibility of following up on the activities of respondents[9].

2. Implementing the Community Planning Process and Understanding the Results

1) Implementing the community planning process

We decided to use Meiji Univ. -centred case study area(Meiji Univ. Area) and Meikai Univ. -centred case study area(Meikai Univ. Area)[10](Figure 1). Questionnaires were created by referring to Harold A. *et al*(2002)[7], who have studied the techniques and application of the Delphi method. For community planning, participants were asked to assume a region in which the environment and culture were in harmony. The 1st survey(19 to 23. 5. 2006) inquired into:(1) the important categories 'environment', 'community' and 'cultural sensibility';(2) the community planning organisations required for realising future visions;(3) approaches towards realising future visions as presented by Kikuchi S. *et al.*(2006)[10]; and(4) the reasons behind this. The 2nd survey(16 to 20. 6. 2006) inquired into:(1) the most appropriate combination of community planning organisations and problems based on an aggregation of(2) and(3) from the 1st survey; and(2) preferable approaches based on current conditions from an aggregation of(3) and(4). Based on the results of the 2nd survey, the third survey(28 to 30. 6. 2006)

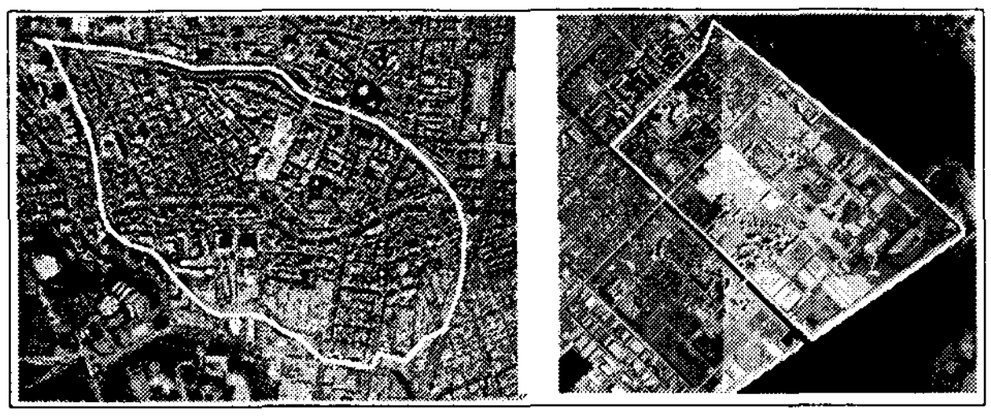


Figure 1. Objective areas
(Left: Meiji Univ. Area, Right: Meikai Univ. Area)

inquired into the evaluation of 'environment', 'community' and 'cultural sensitivity' community planning activities, and the reasons behind these(Figure 2). These survey items are

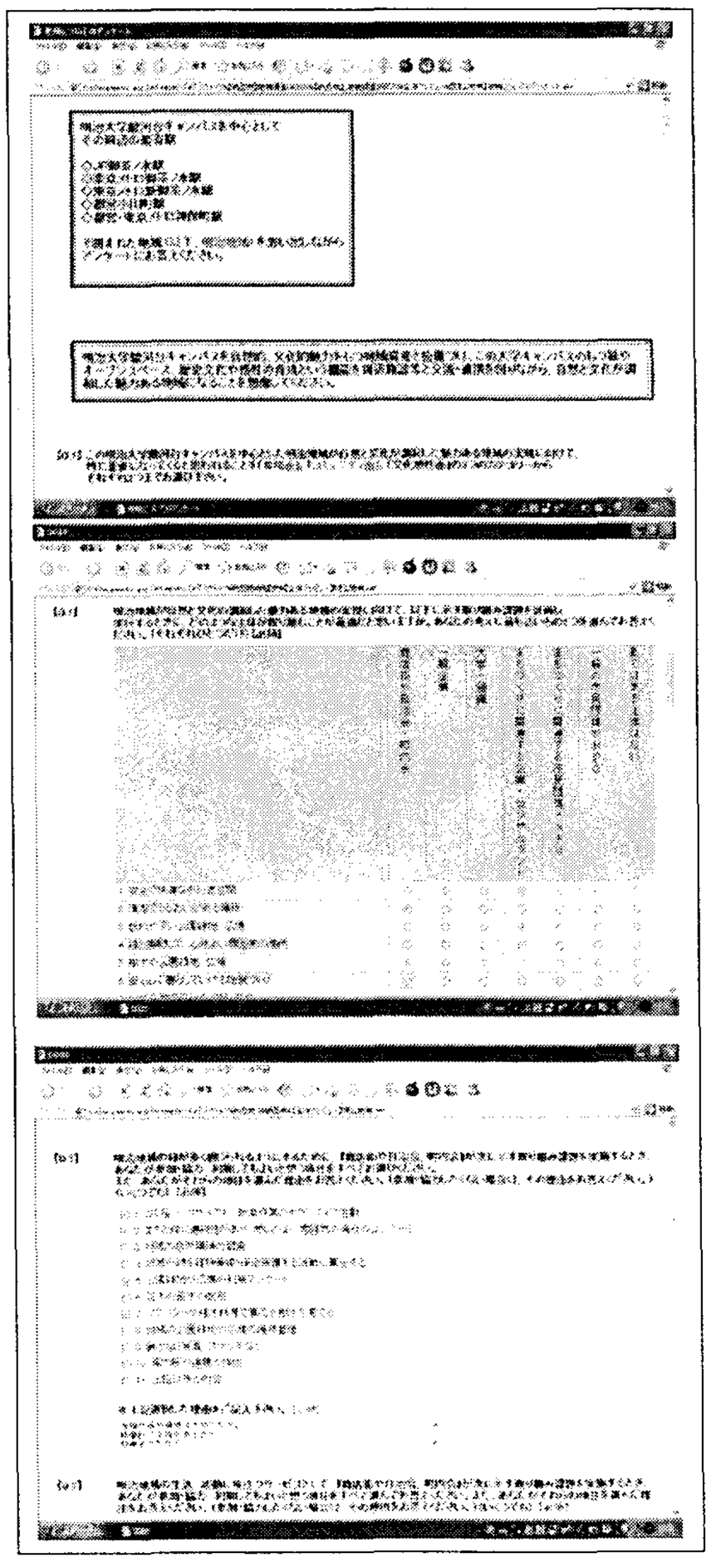


Figure 2. The upper is the 1st, the middle is the 2nd and the bottom is the 3rd web survey

shown in the "RESULTS" section in Figures 3, 4 and 5. When the web survey achieved a collection rate of 70% to 80%, a reminder was sent out to non-respondents, and 24 hours later the survey was concluded. In Meiji Univ. Area, participants live or commute in Chiyoda ward, Tokyo. In Meikai, participants live or commute in Urayasu city, Chiba prefecture. Participants in the 1st survey totalled 170 people[10](Table 1). In this article, "city dwellers" mean the residents, non- residents, commuters, and non-commuters.

2) Methods for aggregating data and understanding the results

The community planning intentions and concerns were extracted using the data from the section 1 of the 1st survey, the section 2 of the 2nd survey and the 3rd survey. In the 1st survey, the section 1 was aggregated under the categories of 'environment', 'community' and 'cultural sensitivity'. Then, visions for the future that were suggested by the city dwellers were understood. In the 2nd survey, the section 1 was aggregated into the appropriate combination of community planning organisations and problems. The community planning that was suggested by the city dwellers was understood. In the 3rd survey, the evaluation of community planning, and the reasons behind it, were aggregated. Then, the community planning intentions of the city dwellers were understood.

III. Results

1. Participants' Characteristics of the Case Study Areas(Table 1, 2)

We aggregated the participants, in order to establish their engagement in the case study areas.[11] It turned out most participants commute the case study area in Meiji Univ. Area. In Meikai Univ. Area, it turned out most participants live in the case study area, and commutes the other area.

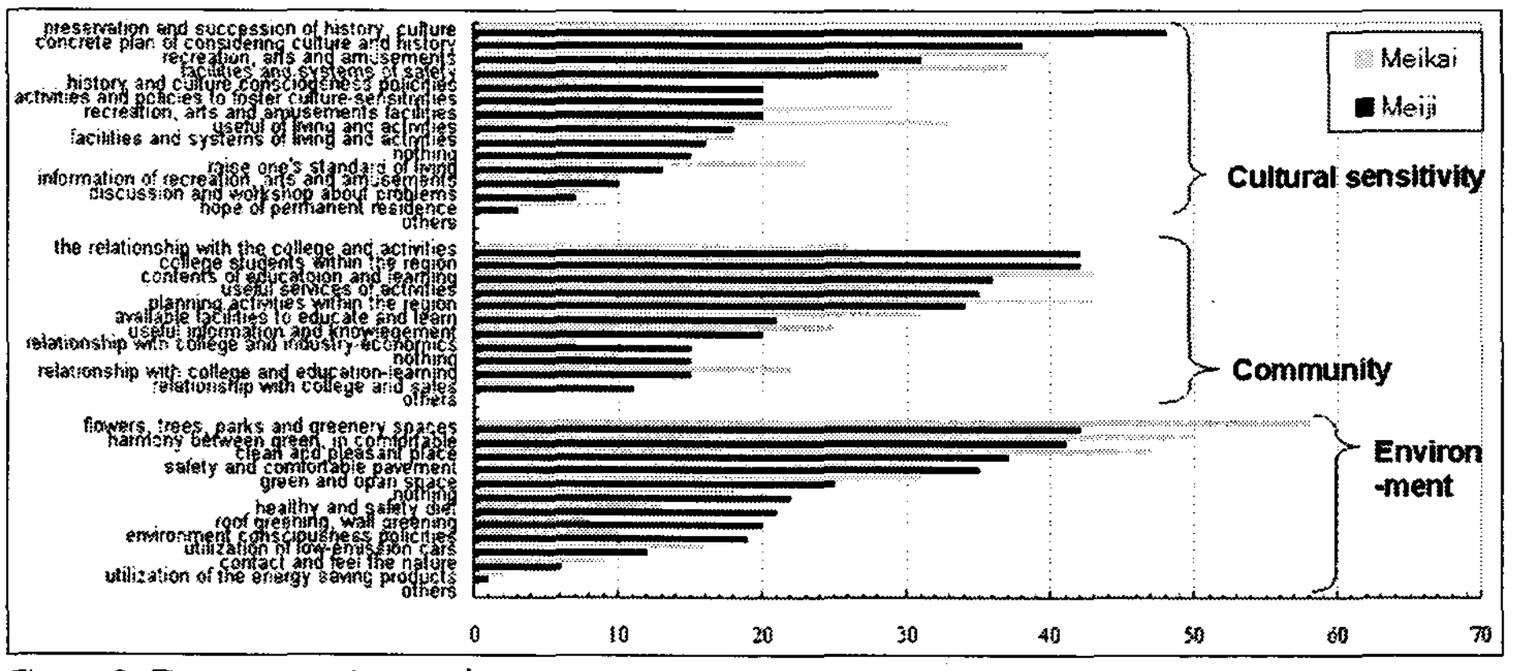


Figure 3. The case study areas' future for the city dwellers

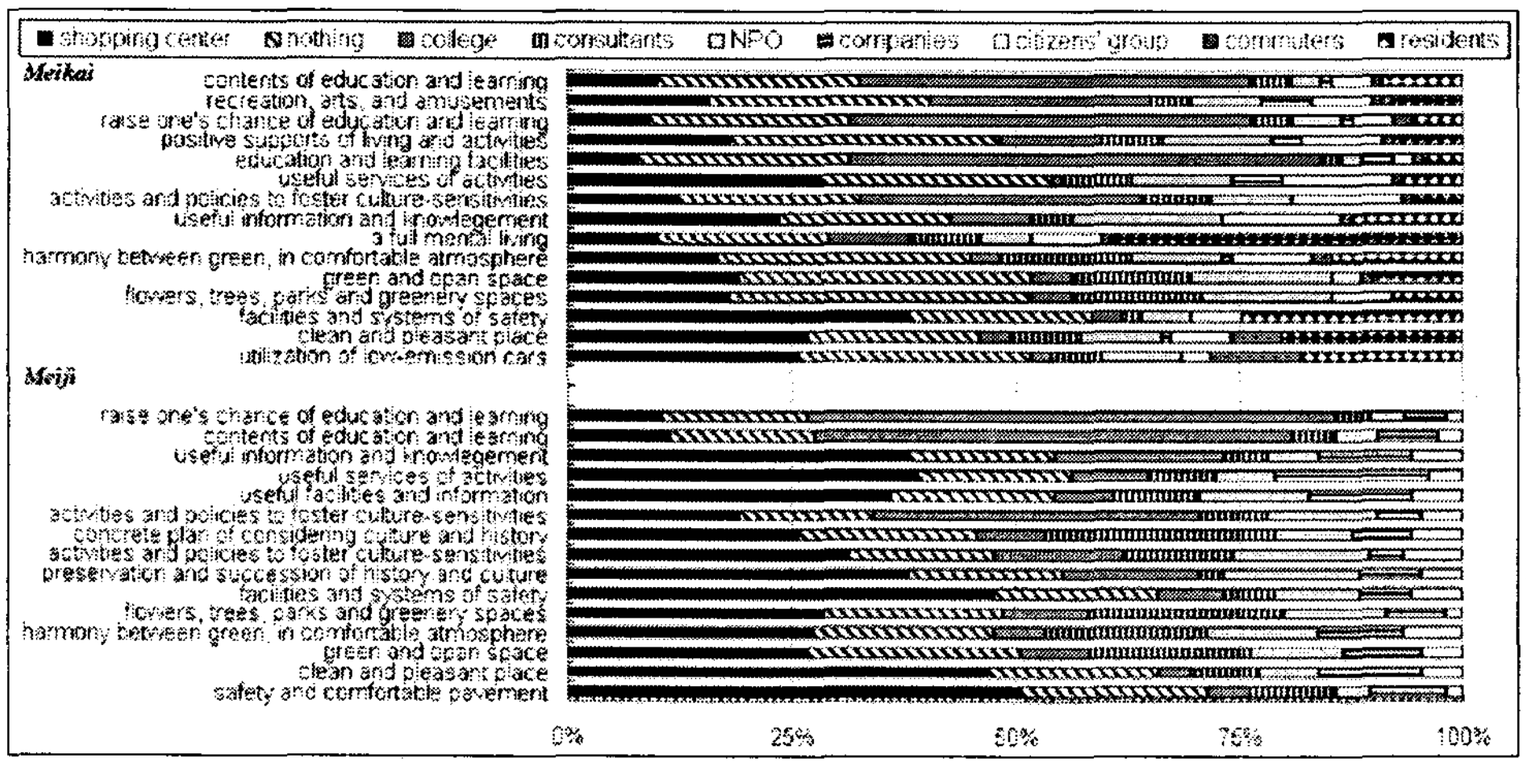


Figure 4. The relationship with the community-based organization and the foremost tasks

Table 1. Outline of participants of the 1st survery[10)]

	Meiji	Meikai
Distribution	337	278
Collection (The ratio of collection:%)	170 (50.4)	170 (62.0)
Significant answer (The ratio of significant answer:%)	170 (100.0)	170 (100.0)
Residents/ Non-residents of the case study area	41/ 129	138/ 32
Commuters/ Non-commuters of the case study area	153/ 17	56/ 115

Table 2. The change of participates from the first survey to the third survey

Melji	a	b	e	f	d	c
The first survey	11	6	11	3	47	47
The second survey	8	4	8	2	43	40
The third survey	8	3	8	2	32	34
The ratio of decrease:% (1st to 2nd)	72.7	66.7	72.7	66.7	91.5	85.1
The ratio of decrease:% (2nd to 3rd)	100 0	75.0	100.0	100.0	74.4	85.0
The ratio of decrease:% (1st to 3rd)	100.0	50.0	72.7	66.7	68.1	72.3

Meikai	a	b	e	f	d	c
The first survey	14	2	70	6	3	18
The second survey	10	2	57	6	3	11
The third survey	9	2	53	4	3	7
The ratio of decrease:% (1st to 2nd)	71.4	100.0	81.4	100.0	100.0	61.1
The ratio of decrease:% (2nd to 3rd)	90.0	100.0	93.0	66.7	100.0	63.6
The ratio of decrease:% (1st to 3rd)	64.3	100.0	75.7	66.7	100.0	38.9

Based on the combination of the residential area, the commuting area and the sojourn time, we arranged the participants' characteristics. "a" and "b" show the participants' characteristics which are living and commuting in the case study area. "e" and "f" show the participants' characteristics which are living in the case study area and commuting to the other area. "c" and "d" show the participants' characteristics which are living in the other area and commuting to the case study area. In the relationship with the case study area, the residents are stronger than the commuters. The power of the relation with the case study area: a > b > e > f > d > c

2. The Vision for the Future(Figure 3)

In Meiji Univ. Area, visions for the future were indicated by 'flowers, trees, parks and green spaces', 'the relationship between college and activities', 'college students within the region' and 'preservation and succession of history and culture'. In Meikai Univ. Area, they were indicated by 'flowers, trees, parks and green spaces', 'content of education and learning', 'planning activities within the region' and 'recreation, arts and entertainment'. Under 'environment', city dwellers suggested a future vision with parks and green spaces as being important. Under 'community', they considered talented people and regional activities to be important. The results differed by case study areas. Under 'cultural sensitivity', the existence of regional history and culture and its preservation and succession, as well as the improvement in the quality of life and activities, were considered to be important. As in case of "community", these results differed by case study areas.

3. The Relationship between Community Planning Organisations and Problems(Figure 4)

In Meiji Univ. Area, a certain trend was indicated in the priority problems and community planning organisations for the realisation of future visions. Items that did not confirm to this trend were 'facilities and systems of safety', 'prevention and succession of history and culture', 'useful facilities and information', 'useful services and activities' and 'useful information and knowledge'. The reason behind this was that the relationship between the special characteristics of community planning organisations and problems is an important item, and is related to the expectations regarding organisations and groups that are deeply rooted in the daily life of city dwellers. Community planning organisations that fulfilled the two conditions were 'shopping areas and residents' associations'. In Meikai Univ. Area, no visible trend was recorded in the priority problems and community planning organisations for the realisation of future visions. However, as compared to other community planning organisations, 'shopping areas and residents' associations' were highly evaluated by city dwellers, and received positive evaluations in dealing with many problems.

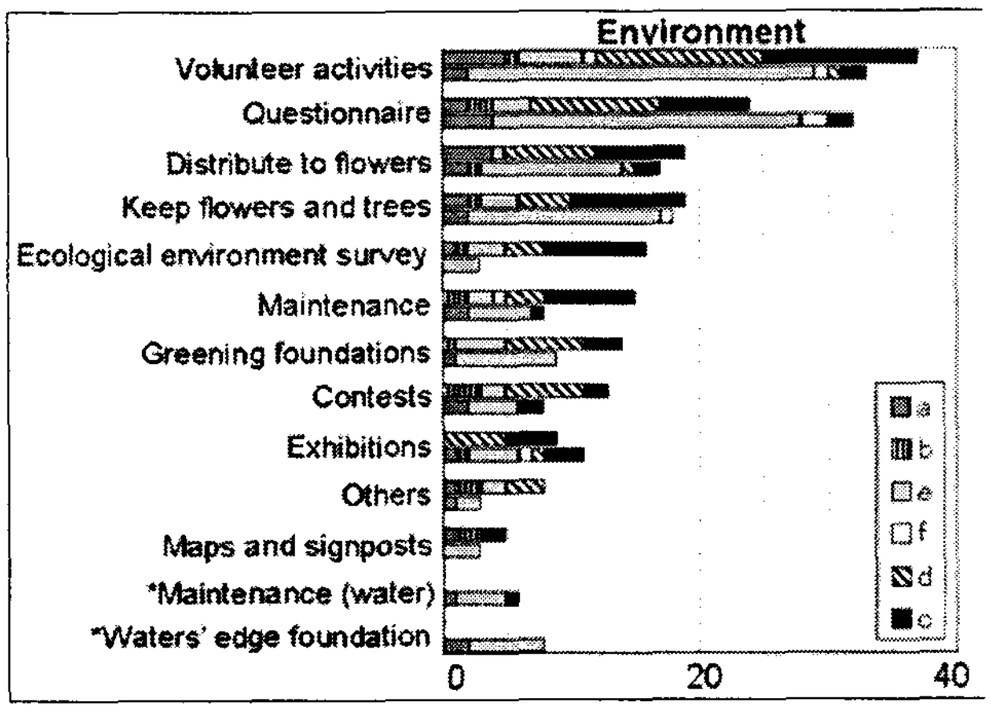
4. Community Planning Intentions of City Dwellers Based on the Evaluation of Community Plans (Figure 5)

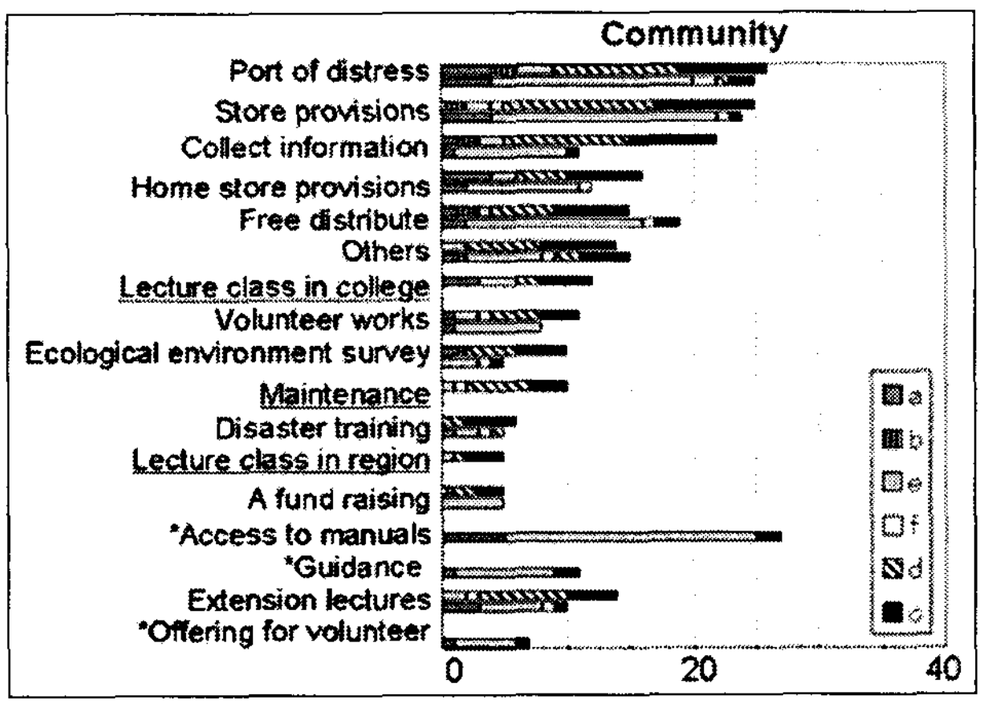
The community planning intentions of city dwellers were aggregated, with a focus on participation in, and compliance with, each activity and on differences in engagement in the region. In Meiji Univ. Area, for activities under 'environment', all attributes responded to 'Questionnaire', 'Keep flowers and trees', 'Ecological environment survey' and 'Greening foundations'. For activities under 'community', all attributes responded to 'Port of distress' and 'Lecture class in region'. For activities under 'cultural sensitivity', all attributes responded to 'Students(web)', 'On-site training students' and 'Visit of authorities'. These results suggest that these items are not activities that determine the characteristics of attributes. In Meikai Univ. Area, for activities under 'environment', all attributes responded to 'Greening foundations', 'Maintenance', 'Water's edge foundation', 'Ecological environment survey', 'Exhibitions' and 'Maps and signposts'. For activities under 'community', all attributes responded to 'Free distribute', 'Home store provisions', 'Collect information', 'Guidance', 'Extension lecture', 'Offering for volunteer', 'Port of distress'

and 'A fund raising'. For activities under 'cultural sensitivity', all attributes responded to 'Visit of authorities', 'lecture by college students', 'Lecture presentation', 'On-site training for students', 'Foundation for authorities' and 'Commendation for authorities'. From these results, it was thought that these items are not activities that determine the characteristics of attributes.

Ⅳ. Discussion

In this study, a web survey was implemented thrice, using the Delphi method, and the community planning intentions and concerns of city dwellers were extracted.(1) The 1st survey dealt with future visions as well as community planning organisations, and considered preferential problems. Under 'community' and 'cultural sensitivity', the visions for the future differed between Meiji Univ. Area and Meikai Univ. Area[11]. This suggested that 'community' and 'cultural sensitivity' influence the individuality of the regions.(2) The 2nd survey dealt with a combination of community planning organisations and considered problems. In Meiji Univ. Area, it was hoped that community planning organisations were deeply engaged in the region[11]. In Meikai Univ. Area, values and expectations featured among the activities of the community planning organisations[11]. This suggested that Meiji Univ. Area places importance on engagement in the region, and Meikai Univ. Area anticipates and values the content of the activities.(3) The 3rd survey dealt with community planning activities with city dwellers' participation and cooperation. Such activities were aggregated with a focus on engagement in the region. This suggested that, compared to Meiji Univ. Area, Meikai Univ. Area had more items involving responses to all characteristics[11]. Matsumoto(1986)[2] has made it clear that stronger the commitment of residents, the more the regional society will become autonomous and be activated. We compared the results of Matsumoto(1986)[2] with the results of this research. It is thought that city dwellers in Meiji Univ. Area, where there were few activities that reflected all characteristics, have a traditional identification. In addition, city dwellers of Meikai Univ. Area, where there were many activities that reflected all characteristics, have residential suburb identification. This suggested that the community planning process designed in the survey was effective for extracting community planning intentions and concerns. It was easy to obtain the true intentions of those surveyed, and by applying a web survey-in which it is possible to follow up on response activities-to a Delphi methodology, the specialisation of city dwellers' community plans and activities was expressed along with the importance of the method of engagement. Data analysis will be carried





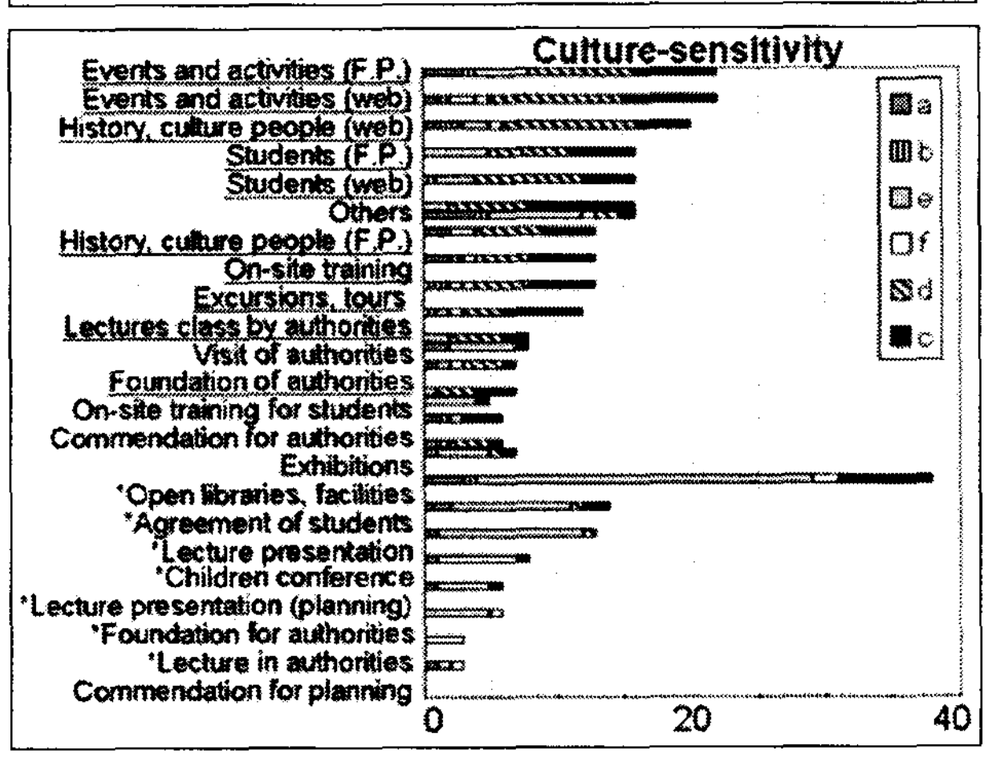


Figure 5. The city dwellers' participation intents by the evaluation of the community planning(Upper: Meiji, Bottom: Meikai) the underlined items were got the answers only Meiji, *marked items were got the answers only Meiikai

out in the future, considering the voluntary and the flexibility of participation of respondents, and from the perspective of the method of engagement within the region(Table 2). Then the data will be presented as feedback, and the accuracy of the community planning process developed in the study will be enhanced.

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