

Characteristics of Walking activity and Walkability evaluation in Tsukuba City

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In recent years, importance of the walking activity has increased on the rise of fitness fad. However, in the research of the past, the research that paid attention only to 'Walked' was not seen so much. Because 'Walking activity' and 'Walkability environment' were treated as one element of a wide concept rather than 'Living activity' and 'Life environment'. Then, the following were tried for the center part of the Tsukuba city that had been maintained in premeditation as a town where it was able to live by walking in this research. First, I clarify the realities of the walking activity of the residents. Another one, I clarify that the relation to the evaluation, the satisfaction for the ambient surrounding by the residents and the item of ambient surrounding that can be objectively shown.

First of all, the research method caught the feature of the walking activity and the stroll activity of the resident from the acquired data by the questionnaire and the hearing investigation. Next, it was clarified that the relation between residents' evaluation value to the environmental in surrounding item of 12 selected based on ANEWS used as a criterion of the walking activity in Europe and America etc.. and the overall satisfaction rating for the walking activity. In addition, to see the relation to the ambient surrounding on the residence ground, the relations between variable groups were seen by the Canonical Analysis. In addition, an environmental in surrounding item was calculated by two methods. One is the evaluation in the buffer calculated the value of a road distance, land use, and society and economical index, etc. within the range in 500m from the residence ground. The other is the accessibility index calculated the beeline to living convenience facilities.

The results of the research are summarized as follows:

1. The walking activity of the residents is divided to daily walking by the unemployed and senior person and the stroll activity on holiday by the employed person. Moreover, on the walking activity have the differences in the purpose and the route in the center part and the suburbs part. The differences caused by the surrounding environment on the residence, such as the level of the pavement maintenance and the accessibility to facilities.

2. The main purpose of the stroll activity is to advance of health and on the sidelines of shopping. And if they have pets those promote the stroll activity. In addition, it became clear that safety and the comfort (spectacle etc.) must be valued as a factor to decide the walking route. The differences caused by the surrounding environment on their resident.

3. The overall walkability satisfaction shows a high correlation with the road and the pavement maintenance and many greens indexes. This shows that the residents attach a high value to 'safety' and the 'comfort' on the road as walkability environment. Therefore, when they have walking activity, they tend to select a pavement and a lot of green roads.

4. The results of the Canonical Analysis, that the high evaluation, the accessibility of various living convenience facilities and the pavement maintenance, has strong relation with the factor that showed a city activity. This shows the high value of city activity makes high walkability satisfaction. In addition, the stroll activity briskly in high satisfaction area.

5. In Tsukuba City, the Walkability area is inside Kenkyu-Gakuentoshi, especially from the northeast to southeast of the station. In this area, there are many living convenience facilities and well-maintenance road. So, this area is 'Walkability' considering to 'Road walkable', 'Chance to walk' and 'Walking amenity'.