

## **Physical and Activity-related Structure Planning with Emphasis on Diversity Case Study: Shahin Shar Districts**

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*Received: 8 December 2019*

*Accepted: 3 May 2020*

### **Extended Abstract**

#### **1. Introduction**

World population is increasingly growing as a result of industrialization in developed and developing countries, lack of proper planning to accommodate the population, and the use of zoning policies; this has led to a number of issues such as social segregation and disappearance of diverse activities and liveliness throughout cities. To solve these issues, concepts such as sustainable development and quality of life are adopted, all which emphasizing the restoration of diversity to the physical and activity-related structure. During the past century in Iran, the increased urban population due to economic, social, and political developments along with inefficient urban management has led to inadequate physical development processes in cities. In the new city of Shahin Shahr, lack of diverse activities in certain districts and the high density of a particular activity in other districts have resulted in the formation of dispersed districts called “towns”; these towns have turned into mere living spaces for the residents. Meanwhile, districts with numerous commercial, service, and medical complexes attract a high number of population. Such a phenomenon has led to the occurrence of social segregation, even though there are large pieces of lands remaining untouched at other regions of the city. This will gradually result in the

citizens’ lack of satisfaction which would bring about novel problems. Subsequently, the present study is conducted with the purpose of planning for physical and activity-related structure to increase diversity across Shahin Shahr districts.

#### **2. Literature Review**

Studies related to the cities’ physical and activity-related structures are conducted separately. However, the present study seeks to connect the two in order to offer a strategy to increase diversity by identifying various problems in physical and activity-related structures. Jacobs (1961) introduced the concept of diversity as one of the fundamental dimensions of cities and an essential factor for livability, economic growth, and city’s attractiveness. In this regard, Talon points out the three notions of integration, communication, and security as the three sides of a triangular required to achieve sustainable diversity:

A) Integration is introduced as a factor to achieve diversity in terms of use and housing integration. Housing integration refers to the existence of houses with different background, total area, and price in a single region. This would increase diversity since different uses and different economic and social classes require a variety of buildings with different prices, total areas, stories, method of occupancy, etc. Use integration also refers to mixing urban uses at various scales and different time periods. Subsequently, use integration can be claimed to involve four

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dimensions including horizontal, vertical, and spatial and temporal commonalities.

B) Communication: To achieve a district with diversity, integrated uses and housings should be able to communicate with each other through the network of passageways. To this aim, planners should focus on creating alternative routes by shortening block dimensions.

C) Security: Increasing the integration of uses and building communications among them result in social integration at public spaces in districts; when the sense of security is diminished as a result of such integrations, people would gradually migrate from the district, resulting in reduced diversity. Consequently, indices for increasing physical security should be employed.

### 3. Method

The present applied study was conducted using the descriptive-analytical approach. In other words, in addition to describing the features of diversity in physical and activity-related structures of examined districts in Shahin Shahr in this study, it was also attempted to analyze the diversity status and offer solutions to problems related to lack of diversity within the aforementioned structures. Data collection was carried out using library and field studies. The total population of the study included the residents of Jami, AttarMiyani, and Mokhaberat districts of Shahin Shahr. Sample population was calculated as 377 using Cochran's formula with 95% confidence level and considering  $p=q=0.5$ . Accordingly, 100, 158, and 199 questionnaires were distributed among the residents of Jami, AttarMiyani, and Mokhaberat districts through simple random sampling. To analyze the data and extract statements on issues, mean tests were used for mental and entropy indices, Simpson, and center of gravity by considering competition over diversity of use and housing and accessibility to uses. Finally, in order to produce possible scenarios and select the best one, the "Attention, Interest, Desire (or Decision), and Action (AIDA)" technique and achievement matrix were used.

### 4. Results and Discussion

The results regarding the use of indices across districts showed housing diversity

indices of 1.87, 2.72, and 2.26 in *Jami*, *AttarMiyani*, and *Mokhaberat* districts, respectively; furthermore, the values of security index were respectively obtained as 2.38, 2.6, and 2.5. Finally, the value of physical communication was obtained as 3.07 for *Jami* district and 2.9 for the other two districts. Accordingly, it can be inferred that the index values of diversity in use, housing and security were below average across all three districts while the physical communication was found to be at an average level in the examined districts. Therefore, it can be concluded that all three districts are faced with several issues in terms of use diversity in dimensions including horizontal, vertical, temporal, security, and physical communication.

### 5. Conclusion

According to the results obtained from the adoption of AIDA technique in Jami and AttarMiyani districts, a scenario involving 6 decision-making fields (liveliness, social equity, spatial equity, housing, transit network, and security) and 9 policy-making fields (increased diversity of use, increased presence, enhanced nightlife, increased flexibility, improved public transport network, improved pedestrian passageways, increased housing diversity, proper distribution of uses, and increased satisfaction level of social groups residing in the district) should be considered in order to increase diversity. Accordingly, to solve the issues related to physical and activity-related structure and restore diversity and liveliness to the city, the following actions are recommended:

- Increasing the attractiveness of public spaces and edges;
- Increasing vertical, horizontal and temporal integration of uses;
- Removing incompatible applications;
- Decentralization of applications;
- Constructing housing units with diverse areas, prices and types;
- Preventing the destruction of old housing units;
- Enhancing the quality of public transport vehicles and pedestrian passage network;

- Considering applications attractive to the public;
- Placement of public spaces in environments with suitable views;
- Enhancing lighting across urban spaces;
- Increasing nightshift public transport;
- Considering active, dispersed applications at night;

- Increasing the compatibility of public spaces.

**Keywords:** Planning, Physical Structure, Activity-related Structure, Diversity, Shahin Shahr

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**How to cite this article:**

Talebi Varnosfaderani, A., Shahivandi, A., & Moradi Chadegani, D. (2020). Physical and activity-related structure planning with emphasis on diversity Case study: Shahin Shar Districts. *Journal of Geography and Urban Space Development*, 6(2), 249-271.

URL <http://jgusd.um.ac.ir/index.php/gud/article/view/84534>

**ISSN: 2538-3531**