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Evaluation of Adolescent-Friendly Environmental Quality Indicators through Their Participation

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Abstract

Youth participation in planning and design process in their living environments is an important issue that has significant impact on young participants, the community, spaces and places where they live. So, using their participation in the evaluation of youth friendly environmental quality indicators can lead to the creation of desirable urban spaces for them. After developing indicators on the basis of theoretical foundations of adolescent-friendly environments, this study attempts, to assess the importance of the indicators from 15 to 18-year-old adolescents' view in making an ideal city, in Rasht Golsar district and to find that to what extent their living environments have been successful in meeting these measures. Research method, has been descriptive-analytic and theoretical foundations through library and teenagers' view analysis with a combination approach was carried out through two questionnaires, focus group discussions and map anchored interviews. For this purpose, quantitative data analysis software method Excel and Spss and qualitative data analysis was conducted using content analysis. The results show that the studied indicators are very important for teens and most of these indicators has no place in their living environments.

Key words: *participation, adolescents, friendly environmental quality indicators.*

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Introduction

One significant segment of the population that is frequently overlooked in the process of making change in their living environments, are youth or adolescents—people in their teens or early twenties. They are often excluded from opportunities to participate in the process of planning their own communities, which evolve without responding to the unique needs of these young residents. It is clear that their preferences, needs and experiences are entirely different than those of adults, but rarely have been taken into account (Frank, 2006:351). These preferences, needs, and experiences stem directly from the perceptions the teenagers hold of their surroundings; therefore, understanding how teenagers perceive and relate to the physical and social construct of their surrounding is central to respond to these needs in the planning process. It is important to realize that it is difficult to understand these perceptions and even more difficult to capture and reflect them in the planning process because it is subjective (Cele, 2006: 14). The fact of the matter is that due to the heterogeneous nature of these perceptions, they are not always easy to capture, but when captured and incorporated in the spatial representation, this information enables a connection to be formed between the large scale urban phenomena and the small micro scale of the individual and his/her experience in their living environment. This link becomes essential in shedding a light onto what constitutes a positive quality and what constitutes a negative quality of the living environment (Alarasi, 2013:2). Of course, to achieve the required and favorite environment for children and adolescents, their participation in the construction and planning of the city is needed and this requires attention to the role of children and adolescents by adults and municipal officials (Driskell, 29:2008). Despite recognition of the importance of the participation of children and adolescents in creating an environment to improve their quality of life since the Con-

vention on the Rights of the Child and that many experts stressed the need for participation of children and adolescents in the process of planning and design and a variety of studies have been done since 1970 in the field of participation of children and adolescents in urban planning and design process, unfortunately, designers and urban planners have not been successful to respond to the needs and ideas of young people in their planning and design efforts. Iran has joined to the Convention on the Rights of the Child since 1993, but yet little effort, especially in the area of planning and design have been done. Therefore, this paper after literature review on adolescent growth model and indicators of the “Growing up in cities” project, have reached to the adolescent-friendly environmental quality indicators and attempt to study the importance of these indicators and the implementation of them in available urban spaces from 15 to 18 year old teenagers’ view in Golsar neighborhood of Rasht City. Current study with descriptive-analytic methodology has been done with a combination of qualitative and quantitative approach for collecting data including two questionnaires, focus group discussions and map anchored interviews. Afterwards the collected data has been analyzed and finally the results will be discussed. The purpose of this paper is to develop indicators based on the theoretical foundations in two areas, adolescent development and adolescent-friendly environments, and evaluate the importance of these indicators from 15 to 18-year-old adolescents’ view in making an ideal city, in Rasht Golsar district and to find that to what extent their living environments have been successful in meeting these measures. This study seeks to find answers to these questions. First, weather the quality indicators derived from previous studies, important for adolescents in the study area in order to create an ideal community second, to what extent, their city has been successful in meeting these indicators and third, weather current urban spaces consistent with

the perceptions and imaginations of an ideal city from adolescents' perspective.

2. Literature Review

A number of key developments have taken place within the international arena over the past 30 to 40 years, with implications for children and young people's participation in planning and design. Three principal "movements" can be identified within the research literature, Children's Fundamental Rights, Sustainable Development, Children and Design (Day et al., 2011:6). The children's rights movement began as early as 1923 with statements made by the International Save the Children Alliance, which the League of Nations adopted the following year. Known as the Geneva Declaration, the statement of children's rights was the antecedent to today's most significant international treaty in support of people younger than 18 years old, the Convention on the Rights of the Child adopted by the United Nations in 1989. The sustainable development movement of the past two decades, with its future orientation, has focused attention on youth as the direct heirs to the consequences of current environmental and social decisions (Frank, 2006:352). The children and design movement(s) have provided a further source of practice. The principles of co-design were advanced during the 1970s and 1980s in the UK and USA. The Washington Environmental Yard project in Berkeley, California (USA) was one of the pioneering projects that showcased co-design principles involving both children and adults, and integrated children's perspectives with much success (Horelli, 2006:238). The explicit recognition of youth as stakeholders arose in the 1970s, particularly in Britain, with planning innovators espousing the benefits of youth participation and introducing the practice through ad hoc projects and its institutionalization within the education unit of Britain's Town and Country Planning Association. More recently, Barry Checkoway and the American Planning Association (APA) have provided leadership on

the domestic front, and Roger Hart (1997) and Louise Chawla (2002a; 2002b) have advanced the practice internationally (Frank, 2006:352). The Growing Up in Cities (GUIC) project was first conceived and implemented by the urban designer Kevin Lynch in Argentina, Australia, Mexico and Poland, under the UNESCO banner in the 1970s, with the aim of understanding the processes and effects of urbanization from children's perspectives. The project was revived in 1996 by new group of activist researchers with leadership of Louis Chawla in eight other countries and succeeded to determine the positive and negative indicators of children's environmental quality of life. Louis Chawla in this project, raised a model to evaluate the living environment of children by their own. (Day et al., 2011:16-18) and Passon have studied the importance of the identified indicators in three different American communities from teenagers' view (Passon et al., 2008). Hart, Treseder, Matthews have studied in the field of youth participation in urban planning and design and defined some participatory models, Fielding, working in an educational context, outlines a fourfold typology of student engagement to illustrate how data gathering can be transformed into participatory process (Day, 2011:8). Liisa Horelli has discussed some indicators for environmental child-friendliness and these identified indicators have been investigated in different neighborhoods as a method for evaluating desirable living environment from teenagers' view by Nordstorm (Nordstorm, 2009:516). Chatterjee has developed a theoretical framework for youth friendly environments with an emphasis on friendship with place (Chatterjee, 2006:17). Literature review shows that most studies have investigated children (under the age 12) and research with a focus on adolescents is inconsiderable, as well, the studies were weather too general and offer too general mechanisms and approaches or are small-scale projects. In addition, the identified indicators for adolescent-friendly environment are too general and

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often, qualitative approach for data collection has been used rather than combination of methods.

3. Transitional period of adolescence and its characteristics in relation to urban spaces

Adolescence terminology is derived from the Latin word (*adolescere*) which means reaching to Maturity. Teens and young people's ages vary in different views and opinions but are generally between 12 and 25 years old, (12 to 18 adolescence and 18 to 25 youth). The course of nurture is relatively difficult period and one of the most critical stages of life (Khodayari fard, 2011: 4). Adolescence is the stage of development where a stable adult personality is formed. The creation of a unified sense of self is the final developmental stage before adulthood. This identity formation includes the development of a stable sense of self and related beliefs, values, and life plans. The development of the self is tied to developing social relations and connections with one's community (Pason et al., 2008:79). As Piaget said adolescence is the result of peer relationships. In terms of Piaget, adolescents' peer relationships, is serious promise of independence in the form of freedom from the bonds of adults (Khodayari fard, 2011: 20). Compared to early childhood, adolescents shift their focus from their parents to their peers, thus, on the basis of their comments, they define a specific function for peer groups in society. These groups function as mediators among adolescents, family, the community, relatives, and neighbors (schafers, 2004:44). Agosto has identified this transitional period in city depending on the development of six self, including Social self, developing stable and productive peer relationships; understanding and negotiating the social world, Emotional self, establishing emotional and psychological independence from his or her parents; developing increased impulse control and behavioral maturity; seeking emotional health and security; establishing relationships with adults other than parents/guardians, Re-

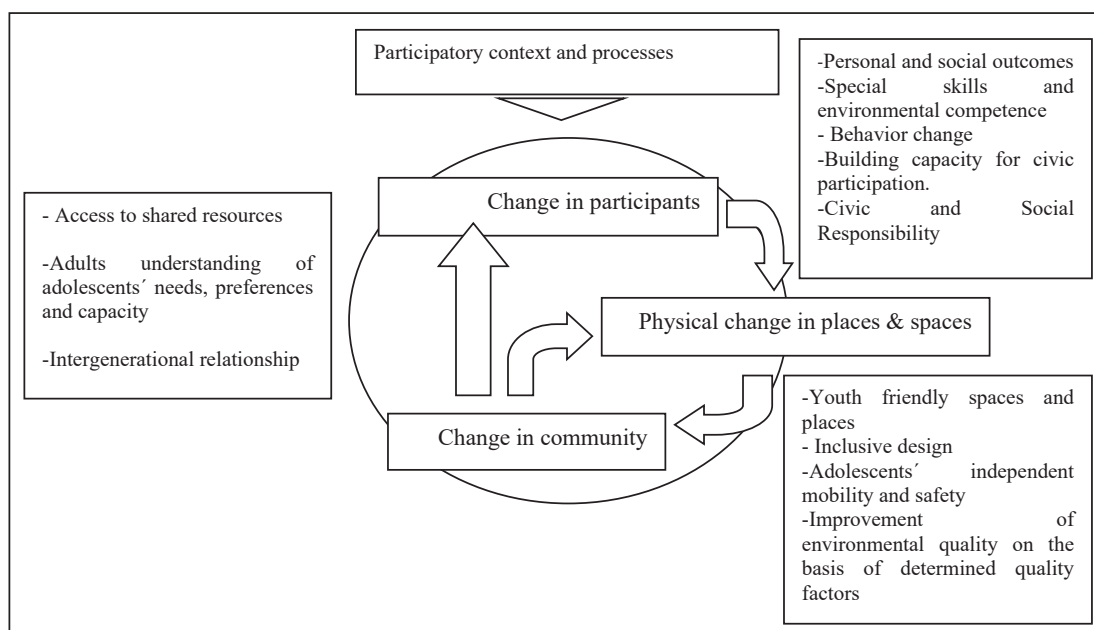
flective self, developing a personal sense of identity; establishing adult vocational goals; adopting a personal value system; developing a sense of civic duty; establishing a cultural identity; questioning how the world works, Physical self, adjusting to a new physical sense of self; developing physical self-sufficiency; seeking physical safety and security , Creative self, expressing artistic preferences; expressing aesthetic preferences, Cognitive self, adjusting to new intellectual abilities; adjusting to increased cognitive demands at school; expanding verbal skills; understanding the physical world (Agosto and Hughes, 2006:1400). They become more mobile and avoid authority. They socialize in larger peer groups of both single and mixed gender. Hanging out becomes an important social activity for these groups. This peer socialization is important for the formation of their personal and social identity and values. Although hanging out in public spaces is viewed as a positive recreational activity by youth, adults often perceive this behavior as a problem and a threat to the community (Glendinning, 2003: 72). Therefore, in the context of place and space, youth development and as a field influencing and being influenced by them, city should be considered. The urban geography and youth, create interaction with each other. Urban youth culture and experience, give different color to life and living conditions in the city. On the other hand, the urban spatial dialog has important impacts on young people's experiences of the space (Zakayee, 2014:37). While younger children often recreate in structured activities that are impacted by facilities such as schools and community recreation centers, adolescents prefer unstructured recreational activities, such as hanging out and socializing with other teens. This requires tolerant public spaces where they can gather, but restrictions on loitering in public areas limit the adolescents' ability to gather together. In addition, adolescents have the cognitive abilities of perspective taking, problem solving, and planning, and the knowledge of

social norms and values to be able to meaningfully participate in planning and community change programs. Their political thinking and ability to use abstract concepts is similar to adults.

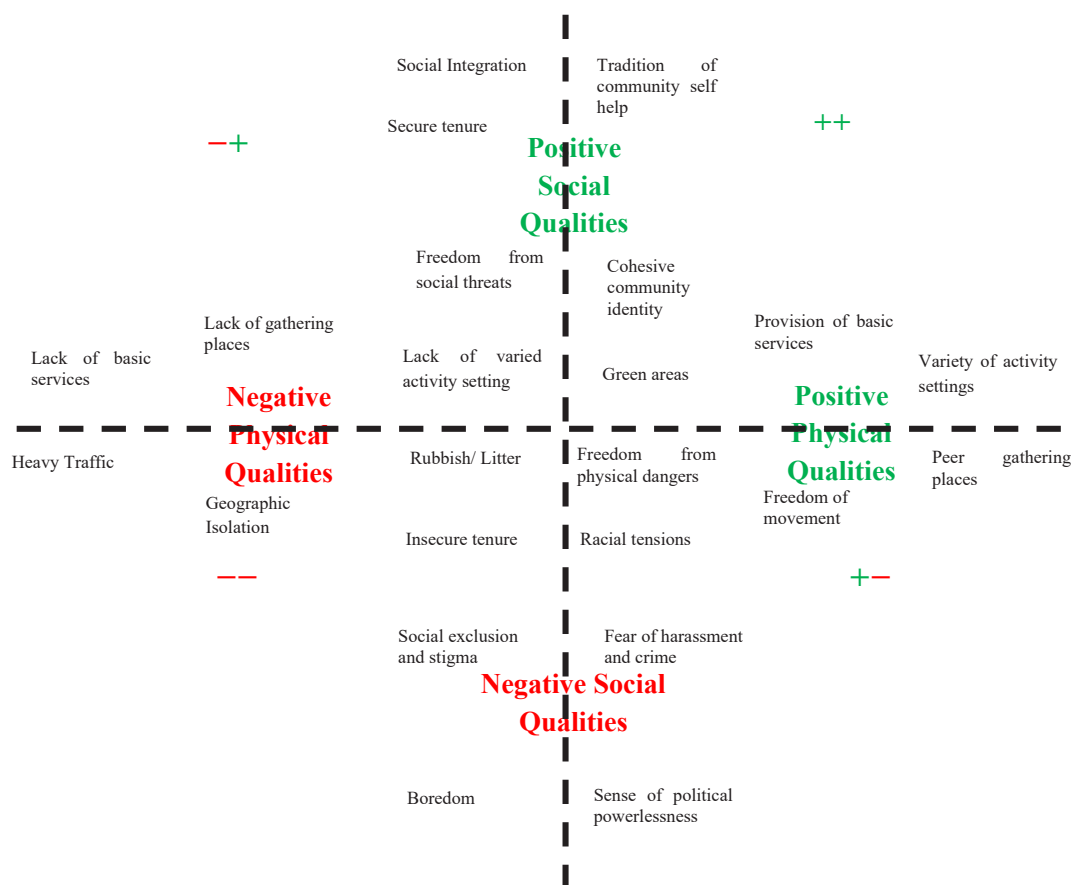
4. Adolescent participation in urban planning and design process

Despite the various possible forms of participation, adolescents are rarely involved in the planning of their living environments. They are generally relegated to the role of “simple user”. And even as simple users, adolescents play a limited role in community planning, since their activities are largely controlled by their parents and carried out in environments that are generally planned to facilitate adult activities and needs (Torres, 2009:8). Frank believes that in addition to legal, economic, political obstacles, most institutions involved in planning, are adult-oriented and have very little space to address the concerns of teens. He has challenged four social view that led to the marginalization of children and adolescents in planning decisions. The developmental view of youth, emphasizes their being in a period of early psychosocial growth and thus lacking the level of knowledge, skills, attitudes, behaviors,

and social connections of adults. The vulnerable view of youth, sees young people as less powerful than adults and therefore subject to abuse by adults or in need of adult protection. The legal view of youth, assigns youth partial citizen status, because youth do not legally hold the full rights and responsibilities of adults, or treats youth as citizens-in-training. Romantic view, regards young people as having unique creation but sees them do not have the ability to participate. Also he emphasizes on youth participation in all 3 stages of changing their built environment, to assess local conditions, formulate action plans, and build support for implementation (Frank, 2006:353). Youth participation programs should be designed to maximize the opportunity for young people to participate in the decision-making process to the fullest extent of their ability. Experience shows that satisfaction comes from the feeling of having influenced the decisions more than from the degree to which a person's needs have been met (Passon et al., 2008:81). Many theorists have acknowledged on the direct effects that youth participation has on their community, places and spaces and themselves. We can summarize this relationship in figure 1



▲ Figure 1. The influence of youth participation on youth, their communities and places (reference: authors on the basis of Ecorys and Loughborough University (2011))



▲ Figure 2. Environmental indicators from growing up in cities on the basis of children 12-15 years old (reference: Alarasi, 2013: 4)

that shows the effect of youth participation on these three field.

5. Adolescents' desirable environments qualitative indicators and introducing proposed model

Many studies have been done in the field of developing youth friendly environmental quality indicators (Lynch, 1977; Chawla & Heft 2002; Lorenzo & Francis, 2002; Driskel, 2002; Coffindaffer & Talen, 1999, Hart, 1992, 1997; Ward, 1998; Moore, 1986; Lynch, 1977; Horelli, 2006; Nordstorm, 2009; Chatterjee, 2006; passon et al, 2008, Alarasi, 2013).

Perhaps the most comprehensive study identifying the factors that children and youth use to determine whether a place is desirable or not, is the Growing Up in Cities Project conducted by UNESCO. This project was an international comparison study of several places, from large

cities to rural areas, which took place in the 1970s by Kevin Lynch and again in the 1990s by Louis Chawla. Chawla (2001) developed indicators of satisfaction or dissatisfaction with the quality of their living environment. These indicators as figure 2 reflect the socio-physical characteristics of local environment according to the evaluation of children themselves. They are ranged along positive and negative poles of social and physical axes of place identity. As illustrated, this results in four quadrants: the first one includes both physical and social qualities that are positive; followed by a quadrant where both physical and social qualities are negative; a quadrant where the physical qualities are positive, but the social qualities are negative; and finally, a quadrant with positive social qualities and negative physical qualities (Chawla 2002; Driskell 2002); Alarasi, 2013:2).

Quality indicators of adolescents' friendly environments	
Social integration	How welcome youth feel in their communities. Communities that possess social integration are ones in which young people are able to interact with other age groups in public places and have a sense of belonging and of being valued.
Variety of interesting settings	A community in which young people have access to a range of places where they can meet with friends, play sports, join in community work, shop and run errands, be away from adult supervision, and observe action on the street.
Safety and freedom of movement	A general sense of safety occurs when young people are familiar with the community, feel comfortable being there, and have the ability to move about freely and easily reach their destinations.
Peer meeting places	Niches in the community that youth can claim as their own places in which to socialize, such as plazas, empty lots, street corners, coffee shops, and community centers.
Cohesive community identity	Meaning that a place has clear geographic boundaries, that residents take pride in the history and culture of the place, and that a positive identity is expressed through festivals and art.
Green Areas	These consist of some sort of vegetation that is accessible to young people, from flat grass playing fields to tree-shaded parks and wild, overgrown landscapes.

▲ Table1. Identified quality indicators for evaluating youth friendly environments (reference: Chawla, 2002, Alarasi, 2013, Passon et al., 2008:87)

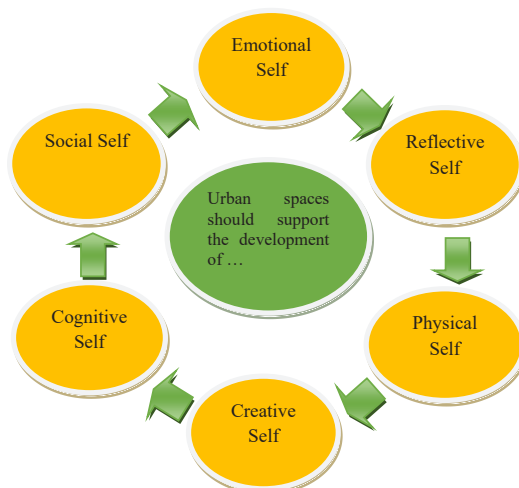
Chawla and Driskell argued that perhaps the most comprehensive study identifying the factors that children and youth use to determine whether a place is desirable, is the Growing Up in Cities Project. In spite of many similarities were found in the ways that young people evaluated their communities across both time periods and all locations, the factors that led to high satisfaction ratings were categorized into six quality indicators: social integration, variety of interesting settings, safety and freedom of movement, peer meeting places, cohesive community identity, and green areas. (Chawla 2002; Driskell 2002; Passon et al., 2008: 86). Their definitions summarized In Table1.

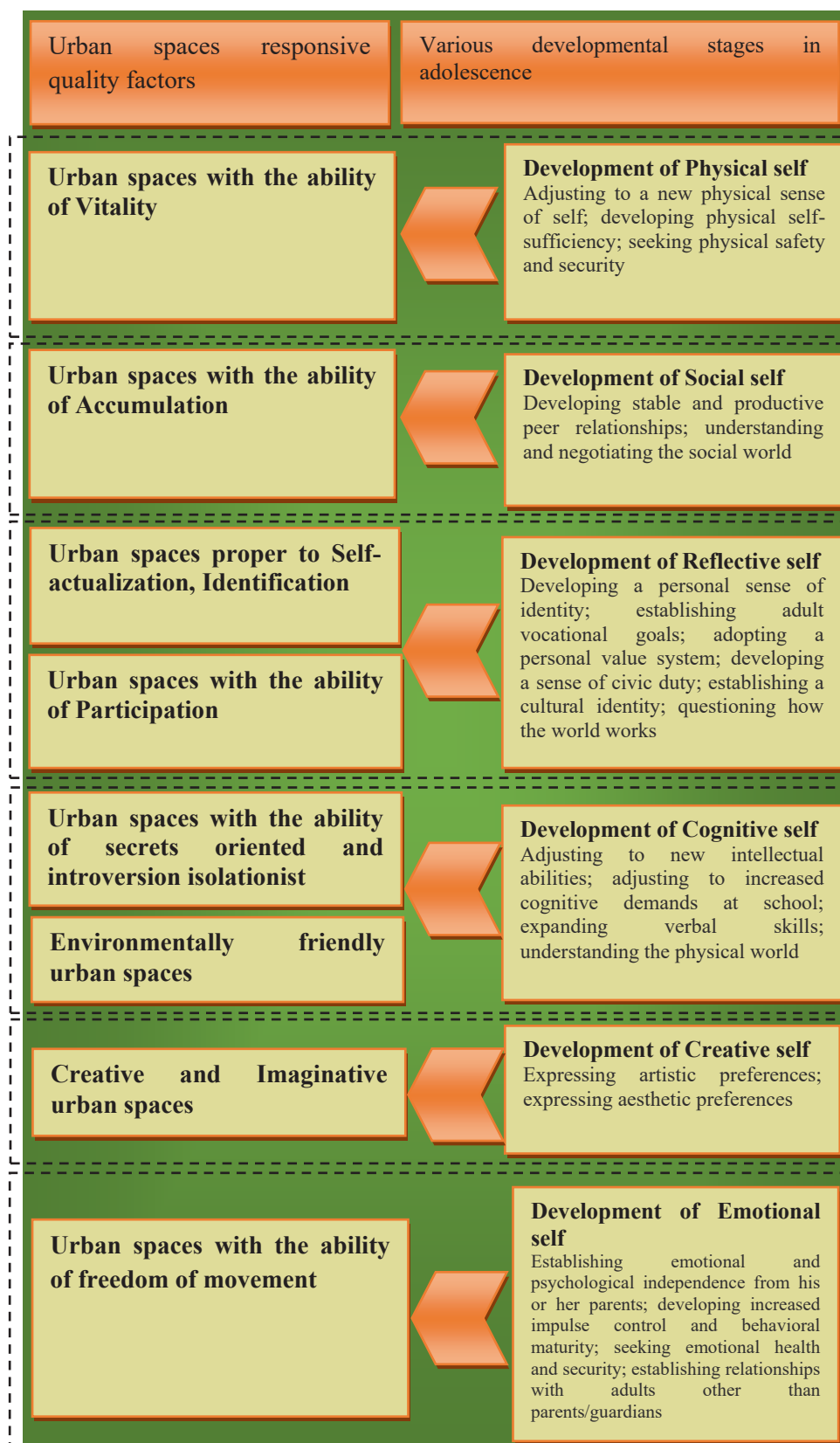
Previous research indicators analysis in identifying youth friendly environment in urban spaces and theories of adolescent developmental stages in urban areas, led to developing this study theoretical framework. Agosto's model in figure3, has been used which demonstrated adolescent growth depending on the

development of social, emotional, reflective, physical, creative and cognitive self in urban spaces and proper responses that they receive from those spaces in addressing these developmental stages. Figure4 shows this study theoretical model.

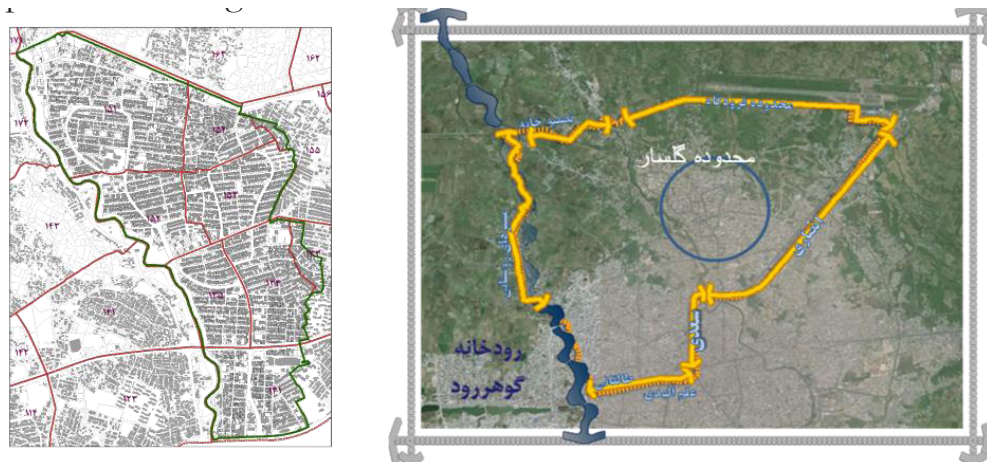
6. Research Method

Research method within the scope of issues of participation in changing living environments,





▲ Figure 4. Theoretical model for youth friendly urban spaces (reference: authors on the basis of research findings)



▲ Figure 5. The location of district 1 and Golsar in Rasht City and figure 6. The detailed plan of Golsar (reference: the report of detailed design studies of Rasht City 2016).

indicators of youth-friendly environments and characteristics of adolescence transitional stage has been descriptive-analytic through data collection tools contain library and documentary studies, and with a combination approach was carried out through questioners with multiple choice answers, focus group discussions and map anchored interviews, in order to study 15 to 18 year old adolescents' perceptions in the study area (Rasht City, Golsar district) in order to evaluate urban spaces quality on the basis of indicators derived from the theoretical framework and the implementation of those indicators in available urban spaces. So with a combination approach (quantitative- qualitative), in the first stage, quantitative methods were used to collect data. In this stage two questionnaires have been set, one of them has been designed to measure the importance of the identified indicators from adolescent's perspective in creating their ideal community and the other evaluates the current situation of urban spaces in meeting these measures. Quantitative data analysis software method, was Excel and Spss and qualitative data analysis was conducted using content analysis. Finally, In order to achieve a deeper understanding of perceptions and values of teens and a closer analysis of data from quantitative studies and the possibility of revealing some factors other than studied indicators, the results of quantitative

research were tested by qualitative methods. The data collection methods were used in this phase were, Focus group discussions and Map anchored interviews. The collected data were analyzed using content analysis. Conclusions based on descriptive statistics were obtained. Rasht city is located in 49.36 longitude of Greenwich meridian and 37.18 latitude of equator and in the northern province of Iran, Guilan. Approximate area of Rasht city with the population of 670000, is about 180 km² combined of organic texture remaining from previous periods and also plaid texture caused by recent development. Rasht city includes 5 regions. Golsar neighborhood has been located in region 1. Golsar with nearly 28000, with plaid texture and middle to high - income class people living in. Approximately 30% of this population are under the age 18. In figure 5 the location of Golsar in region 1 and in figure 6 detailed plan of this neighborhood has been shown.

This study on the basis of literature review and because of the importance of adolescents' relationship with the city and the lack of enough research in this field with this age group, have worked on 15 to 18 year old (high school) students. In this neighborhood two high schools (both girls and boys) on the basis of their officials' willingness to cooperate in research were selected. According to Cochran formula

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the sample size in the survey obtained 270. In qualitative method on the basis of the same projects literature review, the sample size is 15 to 20 students. Therefore, in the process of collecting data, the aim of separation of categories was to ensure participation of both girls and boys and the credibility of the results of this study in terms of the inclusiveness of the target age group and the differences between boys and girls is not the aim of this paper. Although, some differences in preferences, attitudes and perceptions of girls and boys can be seen that the results referred to them.

7. Data analysis

The quantitative data

In this phase, two questioners have been designed that the first one, investigate the perceptions and imaginations of adolescents in order to assess the importance of the identified quality indicators for adolescent friendly environment and the other, intended to determine whether the students felt that the characteristics identified in the first survey are present in their own neighborhood. Content analysis was used to determine the validity of questioners that the content of the designed questionnaires has been evaluated by the relevant experts, and the necessary corrections have been made, in addition, to determine the reliability of both questionnaires, Cronbach's alpha was used. Tables 2 and 3 show that, all indicators of this study is the high rate which express high levels of internal consistency of items in the questionnaires.

Reliability Statistics

Cronbach's Alpha	N of Items
.896	8

	vitality	accumulation	participation	creation	Self-actualization	Independence	mystery	naturalism
Cronbach's Alpha	.821	.843	.859	.917	.929	.889	.907	.872
N of Items	8	6	4	6	10	7	2	5

▲ Table3. The reliability test of each indicator in the second questionnaire (reference: authors)

At the beginning, a questionnaire contained of 8 statements which describes the ideal characteristics of a city on the basis of theoretical framework indicators on five-point rating scales was designed. First questionnaire asked the students to read the list of statements describing characteristics that an ideal community should have, and then indicate how important they are on a five-point scale from not at all important to very important. The results of the first questionnaire data analysis have been shown in table 4 which the average value for all the questions above 4, indicates that the average responses of all students is very important and important options which suggests the importance of determining indicators for adolescents.

In order to investigate the implementation of the identified indicators in current urban spaces, the second questionnaire asked students to answer 26 questions with a focus on the 8 indicators on five-point rating scales from very low to very high. Table 5 shows the results of the second questioner analysis and indicates that the average students' responses are under 3, therefore, it can be said that all urban areas in terms of fulfillment of indicators, are less than the average.

In order to test the third hypothesis, "available urban spaces are consistent with adolescents' perceptions and imaginations about an ideal city" after testing the normal distribution of data in Table 6, Paired sample T-Test in table 7 is used.

While, Sig>0/05, Data distribution is normal and Asymp. Sig row represents normality of the data so we can use parametric tests.

It seems, available urban spaces is not consis-

Indicators	Number	Least	Most	Average
participatory	270	1.00	5.00	4.5166
vital	270	1.00	5.00	4.3432
accumulative	270	1.00	5.00	4.4926
creative	270	1.00	5.00	4.3875
self-actualized	270	1.00	5.00	4.0590
independent	270	1.00	5.00	4.4170
mysterious	270	1.00	5.00	4.4059
nature-friendly	270	1.00	5.00	4.4391
Valid N (listwise)	270			

▲ Table4. Adolescents' perceptions and imaginations of an ideal city, important and very important responses (reference: authors)

Indicators	Number	Least	Most	Average
participatory	270	1.00	3.50	2.2518
vital	270	1.00	3.63	2.4533
accumulative	270	1.00	4.67	1.8465
creative	270	1.00	3.33	1.8007
self-actualized	270	1.00	3.00	1.9568
independent	270	1.00	4.00	2.1924
mysterious	270	1.00	3.00	1.5332
nature-friendly	270	1.00	3.25	2.0378
Valid N (listwise)	270			

▲ Table5. The realization of the indicators in the current situations of urban spaces (reference: authors)

tent with teenagers' conception of the ideal city.

$$\begin{cases} H_0: \mu_1 = \mu_2 \\ H_1: \mu_1 \neq \mu_2 \end{cases}$$

H0 hypothesis suggests that there is no difference between students' perception and imagination of an ideal city and current situations of urban spaces and H1 hypothesis indicates that there is a significant difference between students' perception and imagination of an ideal city and current situations of urban spaces. If $\text{sig} < \alpha$ and $\alpha = 0.05$, H0 hypothesis is rejected.

Given that the level of significance is $\text{Sig} = .000$, and is smaller than 0.05 , and Considering that the Mean value is a positive number, so $\mu_1 > \mu_2$ H0 hypothesis is rejected. In other words, there is a significant difference between students' perception and imagination of an ideal city and current situations of urban spaces.

Qualitative findings

1. Focus Group discussions

In this phase, Students were divided into groups of five or six and were asked to speak

			Ideal perceptions	current situation
N			270	270
Normal Parameters ^{a,b}	Mean		4.3648	1.9848
	Std. Deviation		.63086	.33739
Most Extreme Differences	Extreme	Absolute	.160	.082
		Positive	.157	.082
		Negative	-.160	-.041
Kolmogorov-Smirnov Z			2.630	1.350
Asymp. Sig. (2-tailed)			.152	.082

▲ Table6. Normal distribution of test data (reference: authors)

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Current situation-ideal perceptions	2.38005	.70577	.04287	2.29564	2.46446	55.514	270	.000

▲ Table7. T test results for the third hypothesis (reference: authors)



about the community where they are interested in to live regarding their perceptions and to describe negative or positive aspects of current urban spaces. Interviews lasted approximately twenty-five minutes. Some of their statements and descriptions and the implications of them, have been shown in table 8.

When they were asked to talk about their ideal and lovely city, they talked about the annoyances of urban spaces and explored their favorite city in meeting those grievances.

Most students participating in focus groups were very worried about damages that affect their natural environment, they referred to the city's two rivers, complained about their pollution, the necessity to fix it and using it as a potential to create urban spaces were considered desirable. Also they mentioned to the lack of traffic, less noise and no pollution, no waste, the necessity of recycling and plenty of rubbish buckets, paying attention to pedestrian-oriented and use of bicycles and public transport, creating places for street animals' maintenance as some criteria for their ideal city.

Many of them were dissatisfied with the lack

of easy access to different places and believed that public transport does not have enough efficiency for their independent movement. And when they were asked how they go to school and other places, large majority of them were traveling with parents' and service cars.

Students, especially girls in urban areas alone would not feel safe and the reasons for their fear were most private places without the supervision of the people and the police, dark places, especially at night and fear of drug offenders, so they emphasized on safe city as their ideal city.

Many participants weren't satisfied with the monotonous appearance of the city so in describing their ideal city, emphasized on walls, painted walls, the use of bright colors in facades, especially lighting at night.

Some of them believed that their city is very serious and does not have places for fun, discharging excitements and singing all together. Most students complained of the streets and the lack of proper sidewalks, bike paths along the sidewalks and inappropriate flooring and bumps in it. They also stressed the necessity of attention to culture and climate in urban

Implications	Data source: statements and descriptions
The necessity of the protection and care of the natural environment in the city and usage of the potential of the forgotten natural environment to create recreational facilities	<ul style="list-style-type: none"> - Two rivers water of the city should be cleaned with some pedal boats in and giant Ferris wheels near them (girl 16) - Rasht two rivers should be cleaned and preventing sewage spilling should be considered (boy, 17). - There is no rubbish in the city and they should be recycled fast (boy, 15). - The city should have plenty of garbage cans (boy, 17). - A place for the maintenance of the street animals should be in the city (girl, 17).
Attention to the appearance of the city (city walls, city lighting, facades' colors, streets' flooring) to get rid of the monotony in the city	<ul style="list-style-type: none"> - Instead of ugly block walls, I wish we have painted walls in our city (girl, 17). - I would like the city to shine with full of colorful and beautiful lights (girl, 18). - Lively colors should be used in facades and there should be creativity in designing squares and other urban furniture (boy, 16). - A good city should have beautiful buildings (boy, 17).
Attention to public transit and pedestrian-oriented pattern and the use of bicycles for removing personal cars from the streets	<ul style="list-style-type: none"> - Days a week designated for cycling and in those days the machine is not used (boy, 15). - I would like to have subway in the city (girl, 15). - A city without cars, traffic, air pollution and noise (boy, 16). - I would like to have electric cars in the streets to avoid air pollution (boy, 17)
Provision of various recreational facilities, sports, cultural, historical, educational, therapeutic and easy access to them	<ul style="list-style-type: none"> - A good city has a library, a large school with full equipment, Scientific and Cultural places, a lot of good clinics and hospitals (girl, 16). - Many theaters and historical monuments and shops should be in the city (boy, 15). - Places for fun, amusement, singing and energy discharge for my age should be (boy, 15).
Safety	<ul style="list-style-type: none"> - The police and other agents' supervision for the prevention of crime and the lack of criminal and addict (girl, 16). - My fear has always been quiet and dark places (girl, 16).
Provision of places for attending teenagers with their peers	<ul style="list-style-type: none"> - In the city there should be places like coffee shops that we can go there alone with our friends (boy, 17).
Attention to youth participation and their views by adults	<ul style="list-style-type: none"> - City is only for adults (boy, 15). - Our needs should be considered (boy, 17).
Attention to citizenship rights	<ul style="list-style-type: none"> - There is no discrimination between people in the city (boy, 16). - The opinions and rights of individuals are respected (boy, 17).
Urban design on the basis of climate and culture	<ul style="list-style-type: none"> - design urban spaces according to climate and our culture (boy, 17)
The establishment of appropriate land uses and activities on the basis of Functioning Scale	<ul style="list-style-type: none"> - In each neighborhood there should be green areas and sport facilities (boy, 18). - I wish we had school in our vicinity (boy, 16).

▲ Table 8. The implications and statements and descriptions from focus group discussions (reference: authors)

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designing, the appropriate establishment of adolescents' activities, the need for various recreational, cultural, historical, medical and educational facilities as well as places where they could freely attend with their peers without parental supervision and police presence. Nearly, all of them believed that living in a city where just designed for adults and they have no role and position in its important decision making. So emphasized on their participation in imagining their ideal city.

2. Map Anchored Interview

For the map anchored interviews, students were given a map of their community and asked to label their least favorite places (with red labels), their favorite places to hang out with friends and to go by themselves (with green labels).

The students liked places where they have more freedom to express their individuality, such as their own homes and friend's houses, places that draw a crowd of people together, places where they can be with friends in public without their parents' supervision such as coffee shops and streets, and places where they can be outside and alone such as hiking trails and natural vistas. They disliked places where with structured activities such as schools and libraries because they have been under the excessive supervision and control and have not been allowed to break a definite framework. They also mentioned that they disliked being in hospitals and treatment facilities.

Conclusions

This study is based on theoretical foundations in two areas, adolescence and adolescent-friendly environmental indicators, has achieved to develop some indicators such as urban spaces with the ability of vitality, urban spaces with the ability of accumulation, urban spaces with the ability of self-actualization and identification, urban spaces with the ability of independence and freedom of movement, urban spaces with the ability of secrets oriented and mysterious isolationist, naturalist urban spaces and urban spaces with the ability of promoting

creation and imagination. With a combination approach (quantitative- qualitative), investigate the importance of these identified indicators in making an ideal community and their implementation in current urban spaces among adolescents in the study area (270 in quantitative studies and 15 to 20 in qualitative studies). The results of qualitative and quantitative studies show that the indicators for the overwhelming majority of young participants were important and very important and in terms of importance, all indicators for them are almost on the same level, however, respondents assessed their neighborhood in terms of meeting the qualitative indicators, lower than the average. In addition, the findings of qualitative studies confirm the results of quantitative data. They mentioned, being ignored by municipal authorities in the planning and design of their living environment, being excluded from making decisions to choose their living environment and their commuting pattern, excessive control by parents, lack of attention to the natural environment, car dependency, the unavailability of public transport for all, heavy traffic, the lack of peer gathering places, lack of spaces to foster creativity and learning, monotonous image of the city, sense of fear in the dark, quiet spaces, city and its people unhappiness, lack of appropriate recreational facilities, sports, education, culture and treatment ... as the negative aspects of their city and neighborhood, and they believed that achieving to the desirable city is dependent on solving the described problems. These negative aspects has caused teens to spend most of their time at home and places with structured activities that have distributed as some islands in the city and in order to reach these places, they have to use commuting patterns under the parental supervision and controls (Generally, parents and service cars); therefore they lose to communicate immediately with the urban spaces and only have become indoor and backseat teenagers. As is similar with the results of previous studies for example "It All Used to Be

Better? Different Generations on Continuity and Change in Urban Children's Daily Use of Space" that have been done by Lia Karsten (2006) which concludes that, over time, children's geographies have become more diverse, in addition to the traditional childhood of outdoor children, indoor children and children of the backseat generation can be distinguishable. This problem, inhibits the importance of urban spaces in response to the characteristics of adolescents growing up. In addition, the results of this study suggest that the views of young people are not respected by adults and urban planning and design don't consider their concerns and mental needs, while they enjoy participation in activities related to the city and are sensitive to current problems. So the necessity of the participation of adolescents in the process of planning and design is emphasized and mentioned that collaborative programs in addition to providing valuable data for planners and designers, can benefit the growth of teenagers. But barriers such as lack of experience in the field of participation, and the uncertainty of the application of ideas and opinions in decision-making, lack of ability to express their ideas and opinions, limited knowledge and understanding of the urban design process, insufficient experience of presence in appropriate urban spaces with desirable qualities, adults' fear and negative attitudes toward the adolescents' participation in the process of planning and designing their environment, challenge their participation. So suggests that in terms of process, cities should try to involve the teenagers in the planning and design of their communities and this partnership should begin in a significant level of co-decision with adults. Schools and planning boards must educate students, how urban planning system working and how they can help. Teens should have the opportunity to participate in creating and updating their plans, youth associations and organizations with members elected by their peers and with the role in urban governance is an important step

towards empowering teens and the possibility to have more active roles in their communities. In addition, updating and localizing the existing partnership models also plays a significant role in achieving this.

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