



The Community Participation in the Design Process of Livable Streets

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Abstract. Urban streets in some countries of global south have been struggling for decades and have several problems. Much money is spent on roads construction and maintenance yearly with no significant interest to create places for public life that is different from a city/place to another. This paper addresses the pressing need to review the principles raised by the Western literature of streets design to help to reach livability in Cairo, Egypt through the community participation rather than building a road for movement and daily commutes. The community participation provides action plans that suit the local context. The current work extends to analysis cases from different cities. The research aims to provide a design toolkit for streets to have public places attached. These places can foster the social interaction, active living and community identity. The present paper offers a descriptive and analytical contribution. Inviting the community in the open-ended questionnaire and semi-structured interview provides a level of details in public realm that highlights the need not only to put the road environment on the level of strategic thinking and policy development as an essential element in towns and cities but also community participation at the design level. The concluded remarks provide room for creating streets in Cairo as more than inter-joined connections that serve car mobility and access. The contribution can make better streets as public spaces to live rather than to commute from point to another.

Keywords: Urban streets design · Community participation · Streets for people initiatives

1 Introduction

Previously, streets have played a critical role in shaping the life of the community. Streets have contributed in defining the cultural, social, economic and political functions of cities. They are the first remarkable and distinctive thing that marks the character of a place, from a chaotic and unplanned settlement to a well-established town or city. In Egyptian cities, especially Cairo, the design of street becomes more abnormal patterns and are followed by the urban sprawl with losing their design principles/criteria which were mostly designed on a livability basis. Before the automobile era, streets often served as the lifeblood of neighborhoods, intermingling together the urban life and places that shape up a community. Today, streets are more

commonly considered barriers between a city's residents. Streets often confine people to their private space or a narrow sidewalk along the fringe. As a result, residential streets can be dangerous and uninviting places due to the threat of speeding traffic. This matches what J. Jacobs mentioned about the streets as being "... most vital organs. Think of a city and what comes to mind? Its streets. If a city's streets look interesting, the city looks interesting; if they look dull, the city looks dull" (Jacobs 1961, p. 37; The World Bank 1994). Recently in Cairo, streets are being planned, designed and implemented without even asking the community about its needs or even involving community in any phase of designing their own streets, which led to streets that do not represent the needs of the community.

The objectives of this paper are to refer to the lack of community participation in the design process as a major problem when it comes to streets, also its importance in many ways and to evaluate case studies which were affected by community participation and local initiatives to help solving their problems and achieve their needs. This paper is organized in three parts; the first discusses the research motivation and reason for selecting the settings. The second part handles the design process of streets as an urban space which had been discussed in literature. The third part discusses the cases that are similar to the cases of the Egyptian context which reach the outcomes that determine the pros and cons of local initiatives.

1.1 On Concepts

There's a difference between roads and streets; roads are being for motor vehicles in the first place, although it's recognized that it should serve a dual purpose (United Nations Human Settlements Program 2013). Furthermore, streets are being for people as a priority. Streets should work as the main element of the community as it represents more than 80% of the public space, so, it must be a place for people to work and socialize (Christ 2009; Elshater and Ibrahim 2014). When streets as a public space do not achieve the main purpose of their existence, problems happen such as chaos, traffic jam, pollution everywhere, citizens and users not having a suitable place to meet and do their daily activities such as communicate with each other, walking, safely crossing, cycling and playing...., etc. (Elshater 2014). In so doing, reports have commented on the community itself may be involved not only in making decisions, but also in participating by every means to make streets a place for them so that they would feel a sense of pride and ownership (UCLA 2011; National Association of City Transportation Officials 2013; Elshater 2013).

Community participation – to include people in street design and appraising – is a new approach which needed to be adopted to reach new attitudes as they have a certain vision for their streets which fulfils their needs. Community means any stakeholder parties in particular street residents, businesses owners and pedestrians...., etc. The current paper groups the taxonomy of people into two categories. Figure 1 shows the producers of street environment and the users of street environments.

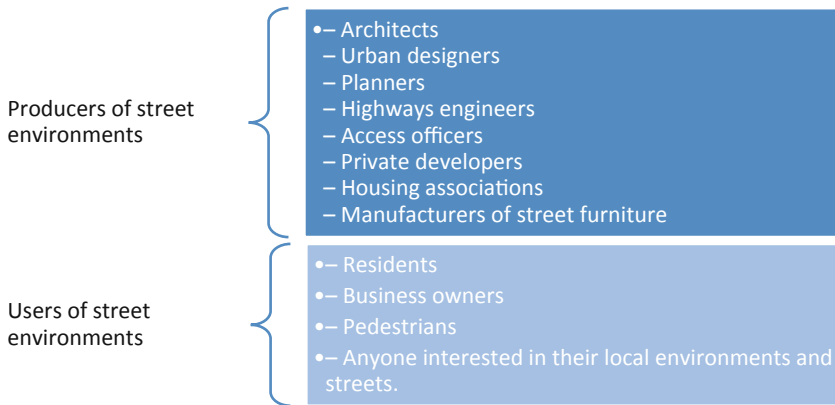


Fig. 1. The taxonomy of people that contact/affect the urban corridors. Source: the authors

1.2 What Is Meant By Community Participation? and Why Is It Important?

The World Bank (1994) defines participation as “a process through which stakeholders’ influence and share control over development initiatives, and the decisions and resources which affect them”. Community participation can be defined as the involvement of people in community projects to solve their problems and fulfil their needs. People cannot be forced to ‘participate’ in projects which affect their lives but should be given the opportunity where possible. This opportunity is held to be a fundamental human right and a fundamental principle of democracy. It can have many forms such as expressing their opinions about desirable improvements, formulating objectives, criticizing plans and evaluating the work done, participating in training activities, they can even implement in small initiatives.

Local governments use design manuals which suit their conditions in designing urban streets. All this so that community can use urban streets efficiently and vice versa, effective community engagement can improve the success rates of policies and projects affecting the built environment because it helps the agencies and organizations leading a project understand and respond to local conditions. Agencies that create true community engagement are more successful at adapting to socioeconomic changes that may influence the effort than those that do not conduct effective outreach (Cogan and Faust 2010). When people affected by a project are involved from the beginning of the planning process, the likelihood of unexpected or significant opposition when it comes time to implement the project is reduced (Kimley 2012).

Community members also have unique knowledge of local contexts, including political, cultural, and geographic settings. Effective community engagement also has the power to build social capital—the social systems and communications that encourage support and interchange between residents (Leyden 2003). A community with a high level of social capital is characterized by a culture of neighbors knowing each other, interest and participation in local politics, high rates of volunteerism, and diversity in social connections. These characteristics foster a sense of community,

engender trust, enhance innovative problem solving, and increase the likelihood that stakeholders will support financial investments in community projects (Burton and Mitchell 2006).

There are so many benefits that would return on the community through community participation on many sides as mentioned before one of them is community health. Long-term health improvements can be achieved by a group of people, when people become involved in the city and act collectively to make a change (Hanson 1988).

Federal workshops should involve people in the planning method that sets the city on a track via increasing strength of the local community. Active community outreach helps to address unlike passage to better development, including issues such as active living. Through successful community outreach, people of all ages, backgrounds, and social standing can contribute to projects that support the ability to live their life in good environment achieving a healthier environment, well-being, social and economic activities along with many other advantages. They also can help project leaders better understand how social, cultural, and economic barriers that impact historically disadvantaged communities are relevant to include the community in streets planning and design process.

2 Literature Review: Streets Design Process and Public Participation

There is no clear process for street design in urban design field, but there is a design process in general that could be used in designing urban streets as public spaces for people. The design processes used in many countries and cities are similar to these processes discussed in the next figures. General design process in urban design according to (Moughtin 2003), Sir Patrick Geddes' planning method was just a survey, analysis and then a plan, but this process needed to be cyclical having intermediate loops (Figs. 2 and 3).

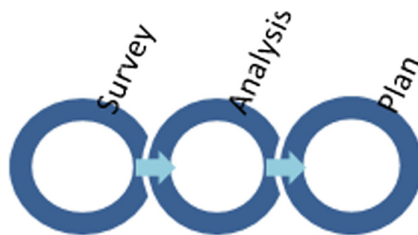


Fig. 2. Design process advocated by planners at first

Design methods advocated by architects are similar in nature to those prepared by planners. The RIBA practice and management handbook (Ostime 2013) divides the design process into four phases:

- Phase 1 Assimilation: The accumulation of general information and information specially related to the problem.
- Phase 2 General study: The investigation of the nature of the problem: the investigation of possible solutions.
- Phase 3 Development: The development of one or more solutions.
- Phase 4 Communication: The communication of chosen solution/s to the client. In this phase designers include clients in the process, but this phase was in the architecture design process not in the planning or urban design process. Street design process needed to have this value, to be able to include the community in the process.

Thomas Markus and Thomas Mayer take the description of design method a little further.

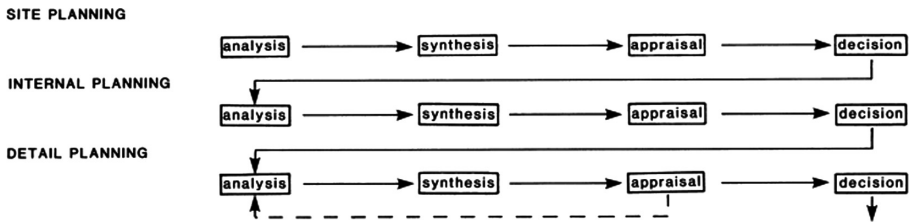


Fig. 3. Architectural method by Thomas Markus and Thomas Mayer

Urban street design process held out in Arabic city of similar conditions to Cairo Abu Dhabi, United Arabs Emirates with no interference from the community in any phase (Fig. 4).

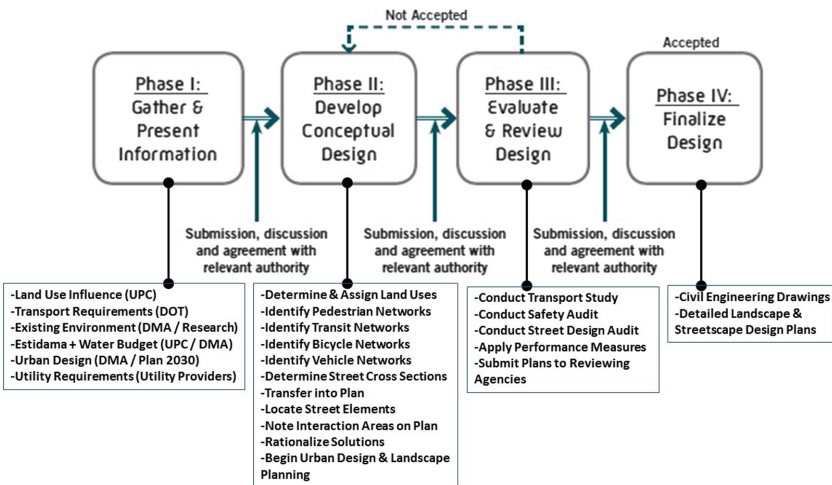


Fig. 4. Urban street design process in Abu Dhabi UAE (Source: Abu Dhabi Urban Street Design Manual, n.d.)

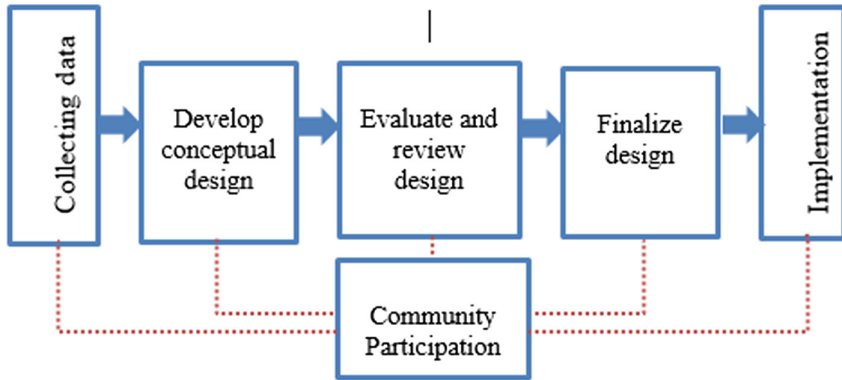


Fig. 5. Integrated design process. Source: the authors

Community participation should be included in each phase in the design process, in developing conceptual design showing their hopes, needs and aspirations. In evaluating the design after it is made by the experts and then to accept it after it finally done and been operated. Community members can even start proposing the projects they see that their community needs to be a better place or sharing initiatives even if it was on a small scale.

Both disciplines of Landscape architecture and Urban Planning and design prepare a development plan for streets in cities and towns. Much of the design and planning of the streets are done by the landscape architect and urban planners without community participation. This practice results in incompatibility of the spaces for the communities; underutilizing or abandoning the streets from pedestrian users, and worse vandalizing the properties of streets. Resulting the streets to be focused on automobiles only neglecting their main purpose.

After discussing all the previous design processes development, the relationship between urban design process and street design process that take place in many cities in the western countries. One of these street design process was discussed in *Global Street Design Guide* published by Island Press. (National Association of City Transportation Officials 2013) A typical process for shaping streets, while local processes vary in each context using the typical steps in the diagram below Fig. 5 to define and guide for each project before it begins. Street design is an iterative process. Processes should be flexible and relevant, evolving and adapting over time as best practices, specific challenges, and contexts change (Fig. 6).

The *Global Street Design Guide* is supporting practitioners to redefine the role of streets in cities around the world. Created with the input of experts from 72 cities in 42 countries, the guide offers technical details to inform street design that prioritizes pedestrians, cyclists, and transit riders. While specific processes vary by place, coordination and collaboration during each stage is fundamental, and effective communication and engagement throughout the process is critical. This process includes stakeholders and community members in the whole street design process from project planning phase till post completion phase.

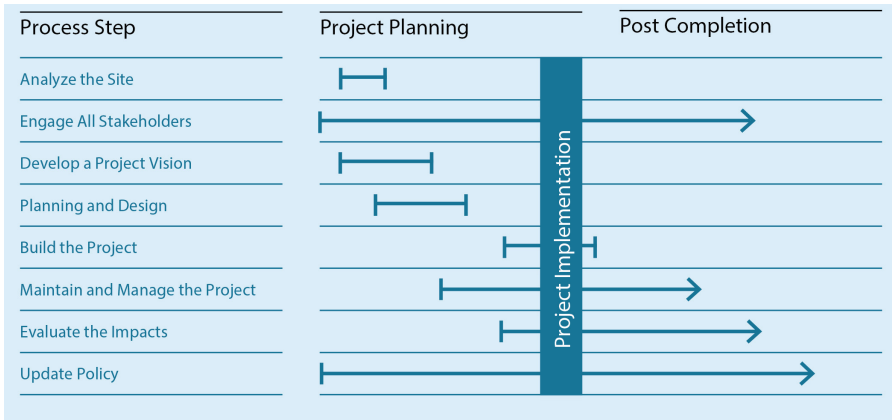


Fig. 6. Urban street design process adapted by global street design guide by NACTO (National Association of City Transportation Officials 2013)

3 Method

This study presents a review of integrating community participation in planning process carried out by non-governmental organizations. The review identified the effectiveness of approaches in dealing with public participation programs done by local governments in three countries: Germany, USA, and the UK. The strategies and approaches reviewed in those counties were compared between system practices in Cairo, Egypt. In the current work, three examples of organizations internationally have been used to illustrate the differences between initiatives of local community internationally and those done locally in Cairo.

The current research extent to collect data from questionnaire which is powered by SurveyMonkey¹. The investigated issues include questions about the user satisfaction on street design in term of safety and initiatives that took place in the street. The sample target was in Cairo which has almost 9.153 million resident 2017 according to Cairo governate website when calculating the sample with confidence level of 80% as most researches do and margin of error 7% the sample size was 84.

3.1 International Cases

Case Study Parklet, SCHÜTZENPLATZ: Real Experiment, (Future city lab., summer 2016)

In the process, it is examined which ecological, technical and social conditions affect the experiment. In this sense, in doing this experiment for sustainable mobility culture, Stuttgart citizens are confronting challenges in urban mobility and experimenting with strategies of detachment through real experiment. The parklet is an intervention in enhancing public space, like parks and spaces parklets act as publicly

¹ <https://www.surveymonkey.com/r/NB3HYG5>.

accessible and usable spaces. However, they are subjected to the responsibility of residents or professionals. In this initiative, parklet are created using parking spaces in street to provide walk-in friendly city and living space instead of parking space for cars (Fig. 7).



Fig. 7. The first case from Germany. Source: future city lab, university of Stuttgart casascuetzenplatz group on Facebook (Future Cities Laboratory 2016)

Invitations were sent to the neighbors to decide what to do in the future considering the experiment and it would lead to three options. The first one to break it down or to break it down in winter or the third one to stay as it is. This experiment was made by community member and developed afterwards by local community itself according to their needs and ideas which suit them.

This experiment used many forms of community participation by expressing opinions, formulating objectives, criticize plans, evaluate the work done, training activities and implementing the project themselves and they are considering the future development as well.

Case Study of Play Grounds in the Street in BRISTOL 2011, by (Ferguson 2011)

There is a project held in Bristol by Alice Ferguson one member of the society there. She has created a national organization called playing out supporting a growing UK-wide street play movement. A simple idea of closing part of a street there to through traffic for a couple of hours to give over the space for children. Kids spend time less trapped indoor and adults can make friends with neighbors. It is an easy cheap way to tackle childhood obesity and social isolation as it brought community together. Alice

campaigned to make this possible and changed the rules in Bristol. Streets apply just once, to hold regular sessions. Eight years on more than forty UK authorities use the same system. Inspired, Toronto is the latest city to pilot the scheme. This initiative proves that community participation is an effective tool to make the right changes that the community really needs.



Fig. 8. The public interaction in the second case, Source: <http://playingout.net/about/what-is-playing-out/> - playing out group on Facebook

Case Study of Play Streets Program in New York

Streets are temporarily closed to traffic to create new places for play. Play Streets partners: City of New York/Health & Mental Hygiene, Transportation, Parks & Recreation, and Education; Transportation Alternatives; local schools and community-based organizations.

Program summary: Play Streets offer a low-cost way for neighborhoods and schools to create more space for active recreation. The program helps neighborhood organizations and schools identify streets that can be closed to traffic for certain periods of time, in order to create new outdoor play spaces.

Community Play Streets are sponsored by local community organizations and operate throughout the summer months. Nineteen community Play Streets were permitted in NYC during the summer of 2012 with assistance from the Health Department and partners, offering programming such as running groups, dance classes, yoga, and soccer workshops, and simple equipment like jump ropes and hula hoops for unstructured play. During the summer of 2013, the Health Department assisted fourteen community organizations with obtaining Play Street permits.

School Play Streets are designed to create active space for schools with limited or no access to a gymnasium, multi-purpose space, or outdoor recreation facilities. Many schools in the city do not have adequate space to meet the State Education Department's requirements for physical education and physical activity and a Play Street can help to address this issue. Fourteen NYC schools obtained Play Streets permits for the 2012–2013 school year, with assistance from the Health Department and partners. The active design highlights some factors such as streets are converted to temporary recreation spaces for children and families. Programming organized by local organizations builds a sense of community and encourages more vigorous physical activity.

3.2 The case of Cairo, Egypt: Local Initiatives

The previous international cases prove that initiatives made by the community are effective method to achieve their needs and it can be in many different shapes; experiment using neglected spaces or reuse spaces, closing street for children to play out in specific timing,....etc. On the other hand in Cairo, There are many local initiatives in the district of Hadaek el-Quba. The observations raised from the co-habitation indicate the need for social initiative to let citizen participate in the design process. Those initiatives came from the needs of the local residents, one of them were in Masr w El-Sodan Street when a famous landmark with the picture of the previous president Hosny Mubarak was destroyed after the 25th of January 2011 revolution and turned to a dump (Fig. 9 on the right side) as an expression of this event and then the reform campaign that went off through whole of Egypt, they start to repaint the landmark regardless of the type of repair, but they care that they need their landmark back.



Fig. 9. The landmark of Masr w El-Sodan street after the reform of the locals and Fig. 8 after the formal renovation (top). Source: by the author

Elkorba street festival initiative is an annual event that took place each spring in El-Korba, Heliopolis in Baghdad Street by the residents there since 2005. The festival features Egyptian performing artists. It represented all the celebrations events and activities such as Graphite drawings, street paintings, singing bands, meeting friends, walking dogs and pets and overall enjoying the whole day for all the Egyptian as showed in Fig. 10, but it was cancelled since 2010 for reasons of security as it was very difficult to control the whole street. After waiting seven years it has been returned but with new place and settings. This example shows how can the local community be effective and make their own activities which would attract people from all over the country not even the Korba residents.



Fig. 10. The Korba Festival. Source: Mariam Elias

4 Results and Discussion

The responses of the survey were 71. The findings from the survey come from ages that ranges from 28% less than 20's, 1.5% more than 40's and the majority was 70.5% from 20's to 30's. When asking the users who respond to the survey to describe their street in just three words. The two largest percent of keywords were 22% quiet and calm and the other are 20% crowd and noisy. The next two percentages were 13% narrow and 12% wide. There is also 14% of them saying that their street is vital, popular, friendly and livable with multiple activities. From their point of view, as for the rest of the responses were between the street is well serviced or has no services at all, clean or dirty and under construction, accessible or unreadable, safe or unsafe and some of them with low percent was that their streets are planted and green. All those descriptions refer to their perspective of the street they are living in.

As for the last question in this survey, the user's suggestions represented their needs in their local streets to hold green features, gardens, shading trees, seating areas, lighting features, to have landscape designs, pedestrian walkways rather than sidewalks, variety of activities such as kids' playgrounds, bike lanes and shading elements. They also complained about some problems that they face daily that their streets i term of being not paved or the paving is needed to be maintained regularly. In this, they added that they don't have enough parking spaces, so they park their cars on sidewalks blocking the way for pedestrian. If a street is not planned to hold too many cars parking, it would narrow it. For this case, they have complained from cleanness and not having enough garbage bins.

In some areas, people throw their garbage on street. Another problem is that those streets districts are residential streets so when it comes to pass through paths they claimed for the needs of more regulations in term of signs, bumps for reducing cars speed, pedestrian crossing points. They also, face problems with occupancies on sidewalks or on the street itself and with unsuitable activities. In their point of view, some interviewees saw that there are some unsuitable activities of food shops that need to be relocated or organized others saw that they need kiosks and shops as a nearby services. For the surrounding architectural style, some responses indicated an implicit hope not to destruct old buildings and villas and to regulate building heights.

Chart (Fig. 11) shows the daily activities that the user can do such as walking across streets and jog as a majority (48.5%). The rest were distributed between gardens, playing in the street, sitting in their front yard or/and biking. There is also large percent of 42.5% had troubles with parking. Chart (Fig. 12) shows the initiatives of the local community when asking the users whether there are initiatives or not. On one side, the majority with the percent was almost 72% who said, 'no there are not any.' On the other side, 18% of them said that there are some but not as much and the rest 10% said there are many initiatives on their streets.

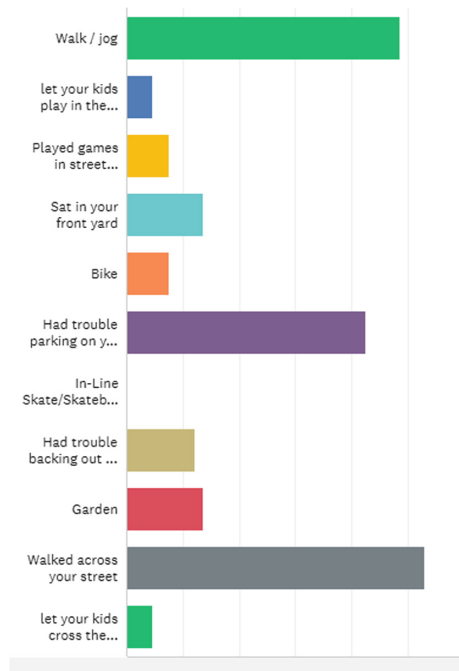


Fig. 11. The normal street activities

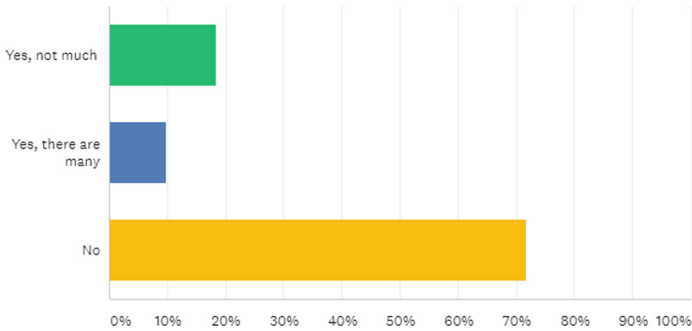


Fig. 12. The local community initiatives

It worth mentioning that the residential streets in the Egyptian context has many local initiatives according to its users’ needs. One of these initiatives were when some of the home residents were throwing their waste on the street, the community decide to participate to solve the problem by clearing all the area from the waste and redesigned it to be a zone where they can set and chat or even look for their around merchandize. These notes were matching the result when asking the users about the suitability of their streets in form of the width the majority of 45% answered that it’s just right. The next percentage of 38% stated that it’s not suitable for the activities that are held in it as for the rest they answered that it’s very suitable for them (Fig. 13).

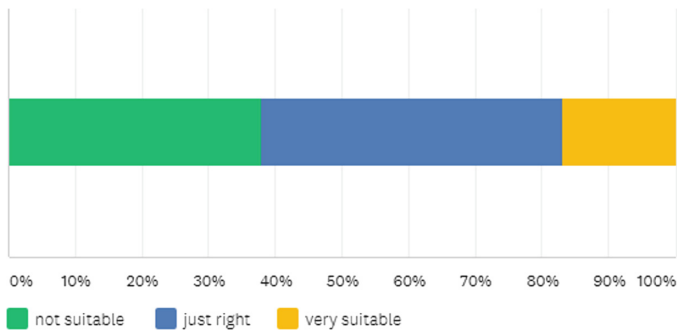


Fig. 13. The suitability of street width for community activities

5 Conclusion

Community participation can be the core of any project that is subjected in each phase of design process till the implementation and the evaluation afterwards. The local community initiatives when they plan and organize the scheme, the design could lead to many benefits. The main benefits are as mentioned before. It can grantee the continuity of any initiative as it has its own engine of local stakeholders that have specific needs, man power, having the sense of ownership and continuous feedback.

All those factors could lead to the success of any initiative, but sometimes when the local community lack the proper experience or just not organized, it can have some of these factors. Otherwise, not all of them, the citizen would need the help by formal organizations or even the government to achieve those initiatives. In conclusion to reach livable streets, there are some criteria that should be achieved to fulfill the needs of the residents and the users of the street in general and who knows those needs better than the users themselves, when including them in the process it would lead to livable streets.

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