



What is the value of BREEAM Communities?

An exploratory study of post occupancy evaluation of the certified urban open space in MediaCityUK in Manchester, United Kingdom. The benefits of utilising assessment tools and user experience.



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Abstract

At the present, open urban spaces play a vital role in cities as they are places where social integration takes place. Urban spaces can provide different activities and many possibilities how the particular space can be used. The aim of this study is to investigate whether urban spaces are designed in a way to meet users' needs. Research methods were based on-site observations and surveys with users of the particular urban space. This master thesis concentrates on post-occupancy evaluation of MediaCityUK in Salford, United Kingdom. The results lead to an assumption that the quality of an urban space influences the level of the user's comfort and affects their activity in a public space. The chosen case study is a part of certified neighbourhood under the BREEAM certification scheme which is a standard for measuring sustainability. This master thesis identifies what kind of improvements could be made in terms of better certification process in a way that could be beneficial for different parties such as city planners, environmental designers and developers. The study concludes the need for post construction evaluation to be a part of BREEAM Communities scheme because the users' satisfaction level defines whether the sustainable standard complies with the aim of successful urban space. Furthermore, the research takes into account different factors which can influence the creation of public spaces such as public participation and land ownership.

Keywords: post-occupancy evaluation, public space, sustainable neighbourhood, BREEAM Communities, MediaCityUK

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1. Introduction

In the 19th century, public open spaces started to emerge in the United Kingdom and United States and as a result the working class could spend more time outside the squalid and small apartments. Nowadays, public spaces are an inseparable part of a city and play a significant role in social integration. There are many types of public spaces such as parks, piazzas, squares, local markets or just streets. The functions of these spaces may have varied as they can be places for relaxation, doing activities or be a liveable place with a lot of entertaining events. However, some of the urban spaces can be also abandoned and poorly used by the residents which indicate that particular space does not match users' needs. In order to avoid this, places should be carefully designed in order to meet people's desires. Developing a liveable place where people will have a feeling of personal attachment to the particular urban space might be a challenge for the urban planners, landscape architects and environmental designers, however each place should promote social integration and create a feeling of being a community. This challenge could be minimised through the use of the post-occupancy evaluation (POE). It can be assumed that knowing the users' opinions could be helpful for future creation of the public spaces and could increase the usage level. Furthermore, it is also a way to assess if the specific place is used the way the designers intended.

Given today's rapid growth of urban areas, its complexity and lack of strategy, researchers have started to develop tools to promote the development of sustainable cities. Currently, many are engaged in promoting sustainability certification as a planning tool. Using a certification scheme for urban complexes is rather new and it is an extension of widely used certification scheme for buildings. BREEAM Communities (Building Research Establishment Environmental Assessment Method) is an example of such a certification scheme. This British rating system measures the sustainable impact of neighbourhood-scale developments. It is a multicriteria evaluation tool, which takes into account the three dimensions of sustainable development - social, environmental and economic development. Currently, BREEAM Communities scheme does not require undertaking post-occupancy

evaluation. As a result, once an urban project is certified based on the plans, the final design is not evaluated afterwards. It needs to be emphasized that users' feedback could easily verify whether the project was developed in a successful way seen from perspective of users.

Based on the observations of green certificates sector, POE seems to be problematic, because of lack of standards and transparency of the process. Due to the fact that POE is not a norm for the developers, it is not apparent who should conduct the evaluation when project is placed in the neighbourhood scale. Post-occupancy evaluation is not a mandatory requirement in BREEAM Communities certification, therefore this master thesis will analyse how the post-occupancy evaluation could be a value for the designing and improving outdoor public spaces taking into account further developments. The lack of effective follow-up of the particular project does not provide a possibility to establish what is successful and what should be enhanced within the project on the neighbourhood scale. This appears at odds with the BREEAM Certification scheme for buildings as this in that case the certification process includes post occupancy evaluation, therefore the same approach could be followed in terms of neighbourhood scale.

1.1. Problem area

When it comes for BREEAM Communities, there is currently 8 projects which have been certified under this scheme in the world. Due to the small number of those projects and the fact that they are relatively new, MediaCityUK in Salford (United Kingdom) was chosen as a case study as it was the first pilot project certified under this scheme with the longest history. Moreover, British case study is even more interesting to evaluate since there is currently second phase of this development under construction. Having another phase of the project create a possibility to draw conclusions and apply the findings in the second phase.

The main purpose of this evaluation is to investigate the user experience and to determine whether people who use the particular public space are satisfied with its function and features. Furthermore, the master thesis assess BREEAM Communities

certification scheme in order to see whether conducting of post occupancy evaluation can be a useful tool for the different parties such as investors, city planners and environmental designers in developing future projects. Currently, the development of MediaCityUK is going into its second phase, and an evaluation of the first phase would, therefore, be the perfect opportunity to identify benefits and drawbacks so as to inform the future development of MediaCityUK site. The BREEAM Communities manual does not include any information regarding post-occupancy evaluation, and therefore, a set of methodologies was developed, based on the several scientific publications on public spaces evaluation. Moreover, the number of publications about post-occupancy evaluation (POE) of neighbourhoods is relatively limited compared with the literature on the evaluation of buildings. Hence, the aim of our project is to contribute to the ongoing debate about POE on a neighbourhood scale.

Although BREEAM Communities takes many aspects into consideration, e.g. economic impact of the development, housing provision or transport assessment, the master thesis will only consider the public and seek to assess users' impression on the newly created and certified public space.

1.2. Problem formulation

The presented questions and their investigation should provide answers about the value of post-occupancy evaluation, which might be considered in the future public space projects. It shall further be the outcome of this thesis to describes the challenges of post-occupancy evaluations in the public space. Furthermore, the aim of this master thesis is to suggest what types of lessons can be transferred to other public space projects.

The problem formulation in which this project will be researched:

What can different parties such as city planners, environmental designers and investors learn from the post occupancy evaluation of BREEAM certified urban space?

The main purpose of this report is to evaluate whether the MediaCityUK's certified urban space aligns with the resident's desires. This research question allows to

investigate what kind of results can POE bring from evaluation of certified space, and to what extent those results can be useful for the future by the interested parties such as city planners, environmental designers and investors.

The following sub-questions will support the main research question in order to understand the bigger scale of the challenges and the local context:

1. In what ways has BREEAM Communities contributed to planning of the urban space?

This sub-question will investigate the possibility of utilizing the BREEAM Communities in the planning phase of the urban space and will explore the BREEAM Communities opportunities in bringing positive changes to the local community.

2. Is there any discrepancy between the assumed and actual visitor's behaviour in terms of use of MediaCityUK's outdoor public space? Is there anything that could have been done differently?

According to Whyte (1980), "a space does not become a place until it is used in ways other than the designer intended". Broadly speaking designers and architects do not always acknowledge that many aspects need to be considered when it comes to creating a public space. As a result, people might use the urban public space in a way it was not designed for, therefore this sub-question will explore function of the public space its diversity, usability, accessibility and overall quality.

3. How the outcomes of the post-occupancy evaluation of MediaCityUK can help in designing diverse urban space in the future?

This sub-question will provide a deeper understanding of how MediaCityUK's urban space was designed, what is more will explore the citizens participation influence in designing this public space.

1.3. Research method

In order to discuss the presented issues of post-occupancy evaluation of certified urban spaces, relevant theories and methodology for this master this thesis was applied (Fig. 1). BREEAM Communities manual does not include any information about post-occupancy evaluation, therefore the methodology has to be established based on the several scientific publications on public spaces evaluation (e.g. Gehl 2013, Gamzoe 2006, Mehta 2014, Turpin-Brooks 2007, Gehl Institute Reports, Project for Public Spaces Reports). It needs to be emphasized that, this type of study has not been conducted before. For this reason, this master thesis can be considered as an exploratory research rather than confirmatory research. For the purpose of this master thesis the data collection will be based on-site observations according to Gehl's 12 quality criteria, monitoring based on the SOPARC method, intercept surveys with users of the MediaCityUK's outdoor public space and interviews with professionals. Due to a wide range of different methods a better understanding of a problem can be achieved. Furthermore, an approach which considers different perspectives will help to answer the main research question. Therefore, in this master thesis both qualitative (observations) and quantitative (statistical investigations) approaches will be used.

Furthermore, the detailed description of the case will be provided based on the available literature, planning documents of City of Salford and information from Principal Planning Officer of City of Salford. Collected data will be proceed with a use of the Microsoft Excel program, Google Form tool and Gehl's 12 quality criteria. Moreover, analysis will include the improvements recommendations for the MediaCityUK's outdoor public space. Discussion scheme will be developed using Lefebvre's triad and will connect findings with issues of post-occupancy evaluation. In this way, the final chapter will conclude all the findings and will answer all the raised questions.



Figure 1. Research approach adapted from Maxwell (2012)

In terms of validity, it refers to the way of which particular method is measured and whether it is used in a correct way (Blumberg, 2005). In order to answer the research question, the conducted research need to be valid. When it comes to this thesis, validity of this study could be affected by the poor memory. However, in order to strengthen the validity, comprehensive notes during the site observations were made, as well as during the interviews with the professionals. For the purpose of this master thesis, data were collected by two observers which could also affect the validity of the study. However, a good match of theoretical thoughts were observed between two observers.

2. Theory

The theoretical lens of this present study does not “*adhere*” one particular theory, rather it draws on a variety of the urban theories in creating a ‘framework’ that allows to explore different dimensions in urban space evaluation. This chapter presents the work of well-known urban theorists and practitioners, who have contributed to the field of place-making and shaped the understanding of public spaces today and

who's contributions will be draw upon in this assessment of MediaCityUK.

2.1. Theory of place

The theory of place has a long history. The theory was first introduced by Barker in 1950's and it entailed the study of people's everyday activities and behaviour. It was based on the on-site observations of particular places. Barker (1968) in his studies tried to identified activities and assigned those activities to specific place. Broadly speaking, Barker created characteristics of places and presented their types and varieties. Later theorists such as, Canter (1977), Massey (2005) and Cresswell (2009) have further developed and extended these insights. According to Hauge (2007), Canter recognized '*place*' as '*a product of physical attributes, human conceptions and activities*' (p. 3), whereas Cresswell (2009) perceived '*place*' as an arena for materiality, meaning and practice. Massey (2005) claimed that '*place*' is a result of relations between people and their connections with each other. A '*place*' should be able to bring people together which is equivalent in meaning of a creation of the community.

2.2. Public space

Based on these theorists' observations, a place can be considered as a public space if the place serves to amplify sociabilities (Hutchison and Lopes, 2016). A public space should be an arena for sharing social and cultural experiences amongst users and not only a place with a specific territory and location. According to Hutchison and Lopes (2016), public spaces are a symbol of community mobilization and togetherness.

However, a '*public space*' can be defined in many ways, because of the various types of public spaces. For example, public space can be localized in different areas which have either an urban or rural character. Furthermore, public space can be part of the built and natural environment, what is more, public spaces can be subject to different ownership forms. According to Carmona (2010), a public space can be recognized as a place with free accessibility for anyone. What is more, public space

should be an area where any citizen should feel free to go. Accordingly, public spaces create a very important centre for people's everyday life.

However, as Lefebvre specified, a *'pure place'* does not exist, every place has a sign of culture, politics or ideology (Lefebvre, 1991). Lefebvre (1991) makes a distinction between three types of spaces related to human spatial existence. The first is *'perceived space'* related to the human physical experience with spatial forms and presents a *'real space'*, a space that is used. The second is *'conceived space'*, in how scientists process the space experience and translate this knowledge into maps and mathematics. This space is characterized as an instrumental space of urban planners, engineers and explorers (Elden, 2004). The third is *'lived space'*, is known as an active stage on which social life unfolds and therefore this space represents an essential component of social life (Lefebvre, 1991). The third dimension is seen as a space where social relations take place and where people fully experience these relations in their everyday life. According to Lefebvre (1991), these three dimensions of space interact with one another and should, therefore, be considered as inseparable and interlinked. Known as Lefebvre's triad, the three dimensions provide a good understanding of the complexity of public space and will be used in this master thesis.

2.3. Urban theorists' perspectives

In order to develop an approach to post-occupancy evaluation (POE), this master thesis draw an insight from the classical works of theorists such as Gordon Cullen, William Whyte, Kevin Lynch and Jan Gehl.

Lynch (1962) or Cullen (1973) perceive city structure as a sequence of images, which help citizens to adapt. According to these theorists' city structure can have a positive impact on perception and spatial orientation. Lynch (1962) claims that the concept of urban landscape is not only a material reality, but also a mental structure that results from subjective perception. He divides urban space into individual components: points, lines, surfaces, and volumes. The hierarchy, size, and visual recognition are important aspects, because they affect people's perception of space. Too large spaces can seem empty and unattractive, which is why many theorists

recommend that urban design should be on a human scale (e.g. Jan Gehl, 2013; William H. Whyte, 1980). Furthermore, Lynch (1962) noticed five key elements of high recognition value that makes reading spatial order possible. These are paths, edges, nodes, landmarks, districts. These elements contribute to the citizen's mental mapping of the city and these elements, together with the user's experience, create an image of the city (Cullen, 1973).

According to Gehl (2013) public life is created in open public spaces. Gehl emphasizes that through planning decisions it is possible to influence patterns of users' activities. For decades, he has worked with cities around the world to study how public spaces can be turned into more pedestrian friendly and liveable spaces. Gehl (2013) has also explored how planning decisions can improve or worsen outdoor city life, and introduced differences between types of outdoor activities. Moreover, he distinguished three types of activities: necessary, optional, and social. Necessary activities are related to the everyday's obligatory activities, which occur independently of its quality or the current surroundings. Optional activities are related to the activities "*under favourable external conditions*", and these types of activities are dependent on the inviting character of the surroundings (Gehl, 2013). The third type of activities are social activities, also named as resultant activities. Social activities involve either active interaction with other people (e.g. talking to others) or a passive interaction (e.g. seeing or hearing others). Whyte (1980) argues that "*the aim of planning and design was to create physical spaces that facilitate community interaction*". Like Whyte, Gehl claims that social activities are highly important to maintain the quality of a public realm. However, Gehl also recognized that social activities might occur in public spaces, which represent a poor quality. Gehl noted that when the quality of the environment increases, then the high-intensity social contact and the number of interactions among acquaintances might decrease. This might be caused when the public space improvements are too radical and do not respect the community attachment to this particular space.

In order to facilitate the community interactions, public space has to be accessible, accommodate users' needs and it has to be meaningful for the larger community (Francis, 2003). Currently, a design of public spaces relies on the participation process. Broadly speaking, designers and developers try to fulfil the needs of the community through common dialogue. The dialogue provides designers with

information as to user's needs, that they can feed into the design of a public space. The community has a chance to influence the design process and make a significant difference. Although, this process may lead to the creation of well used place for a specific community, it is also likely that it will only be suitable for a certain period of time, because it is possible that the population of users will change over time, and that their needs will change accordingly. Therefore, after a period of time successful public spaces can become placeless (Beer, 1991; Carr et al., 1992; Francis, 2003). To counter such situations, it is necessary to design spaces so they offer a variety of possibilities to users and can evolve with a changing needs and opportunities. Since 1975, *Project for Public Spaces* (PPS) has tried to overcome this challenge. PPS is a non-profit organization, which main focus is to create public spaces and to give an opportunity to build stronger communities. Over the years, this organization has provided many methods and rules regarding “*how to create a successful public space*” (PPS, 2016). Activists from PPS propose four qualities of a successful public space (Fig. 2).

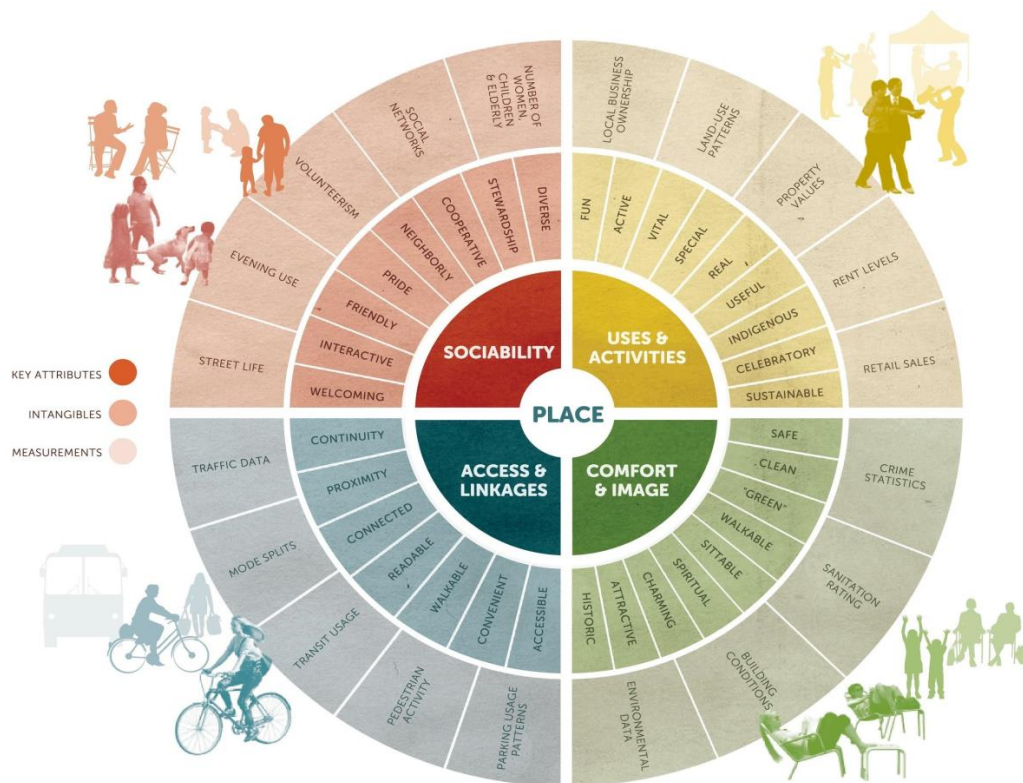


Figure 2. The Place Diagram (PPS, 2016)

The first quality '*access and linkages*' is related to the accessibility of a space. According to PPS (2016), it should be easy to get to and get through the public space, what is more entrances to the space should be visible from the different distances. The second quality '*comfort and image*' emphasises the importance of creating a comfortable place and one which has a good image. According to PPS (2016) definition of '*comfort*' includes aspects such as safety, cleanliness, and the diverse availability to sit. Image is dependent upon what people think of the place and therefore is important to provide a user a good experience there, thus to provide a feeling of comfort. The third quality, '*uses and activities*', suggests that the public space should attract people to participate in activities there (PPS, 2016). According to PPS (2016), a way to convince users to spend their time in the specific public space is to provide them '*10 things to do*', for example to equipped the place with seating arrangements, children's playgrounds, a place to read the newspaper, have a meeting or enjoy a cup of coffee etc. The fourth quality is called '*sociability*' and is related to the creation of a sociable place. According to PPS (2016) this quality is the most difficult to achieve, because depends on the social relationships of people in the local community. The criterion is met when users feel comfortable to connect and interact with different people such as family members, friends, neighbours and strangers. Based on these qualities the PPS developed '*The Place Diagram*' (Fig. 2.). This diagram is a tool and has an aim to help in the evaluation of a public space. This diagram will be used to support the final conclusions of this master thesis.

2.4. Post-occupancy evaluation

The above-mentioned urban theorists emphasize that the evaluation process demands a holistic approach, and this is strongly related to the evaluation theory presented by Rossi et al. (1999). Rossi et al. (1999) argues that each evaluation process is characterized by a number of specific attributes that should create the evaluation methodology and that is a reason why a single approach is not valid for every situation. The results of work of Canter, Lynch, Gehl, Carmona, Lefebvre and others theorists about sensing, using, and developing an urban space are a part of a framework for the post-occupancy evaluation which will be conducted for the purpose of this master thesis.

The emergence of the post-occupancy evaluation (POE) is dated back to the 1960 (Preiser, 2015). POE was created as a result of increasing difficulties with user's health, security and safety in institutional buildings such as prisons and hospitals. The name of POE, has its background from an *occupancy permit* which is issued when the buildings is completed and ready to be used by tenants (Preiser, 2015). Most of the POE definitions are related with the buildings sector. For example, Preiser describes POE as a "*process of systematic data collection, analysis and comparison with explicitly stated performance criteria pertaining to occupied built environments*" (Preiser, 1988, p.188). Another time POE is called as "*the process of evaluating buildings in a systematic and rigorous manner after they have been built and occupied for some time*" (Preiser, 2015, p.3). Zimring and Reizenstein suggested another definition of POE, and claims that evaluation should be perceived as "*examinations of the effectiveness for human users of occupied design environments*" (Zimring, 1980, p. 243). Since 1960s there have been many studies of POE related to buildings such as student dormitories, hospitals and public housing while in 1975 studies about office buildings started to emerged. Subsequent studies concerned military facilities, different types of schools and government facilities have appeared. As emphasized before, POE has its roots in different types of buildings, however over the years it started to expand and touch upon different built environments such as open spaces, play areas and parks. Therefore, in late 1990s the new definition of POE was introduced (Marcus, 1998) and since then, POE has covered evaluation of buildings and also outdoor spaces.

2.4.1. Benefits of POE

In the past few years, many benefits of POE have been noticed. Preiser (1988) distinguished three kinds of benefits related to POE such as, short, medium and long-term benefits depending on the subject and client of POE. Starting with short-benefits, POE identifies the problems regarding the built environment and contribute when it comes to finding the solutions to those problems. POE makes the facility management of the building more active and engaged. What is more, it is a way to get the feedback from the most important group of people when it comes to the

buildings - its users. Medium benefits can lead to change on an organisational level regarding facility management. Furthermore, in this type of benefit POE could affect the way people use the building and afterwards led to cost-savings on many various levels. Moreover, when developers make the building's evaluation it shows their engagement and accountability. When it comes to long term benefits, POE is a tool which contributes to the future improvements of the space. Kooymans (2006) describes POE of the financial institution building as a lever in order to gain employee buy-in. Due to evaluation of user experience the databases, criteria, standards, guidelines and literature is produced which make this field of study more reliable. What is more, POE can provide a useful information when designing a new urban space taking into account findings from similar case studies and from the similar cultural setting and climate zone (Marcus, 1998). Another long-term benefit is related to the educational aspect of the evaluation, because users of the space and professionals could learn from the evaluation's feedback and it might provide a broader understanding of the relationship between people and places.

2.4.2. Barriers of POE

Even though there are many benefits to POE, there are also some barriers which stand on a way in using this tool. The biggest threat of POE is the fact that is carried out without any regularity. POE is not identified as a service for the architects or any other professionals. Copper argues "*client organisations are unlikely to pay for POE unless the benefits of such evaluations are both evident and substantial in value*" (Cooper, 2001, p.159). There is a question who should pay for POE both when it comes to carrying out the surveys but also who should be in charge and pay for the implementation of the findings (Bordass, 2001). Another reason of why POE is not used on a broader scale is the fact that the client or designer can both benefit from the evaluation or actually being harmed by POE when the result turned to be undesirable (Cooper, 2001). However, the biggest reason of lack of POE is the notion of professional liability and a possibility to get a critical feedback which might be meet with criticism from the perspective of professionals. Furthermore, POE may affect the reputation of the design community which is not the outcome that professionals want to receive.

Another challenge is a fact that in some cases POE is not being disseminated (Vischer, 2002). The reason for this is, for example, that organisations related to building environment do not have one established scheme how to treat POE's results and how to present results of the evaluation. This can cause a situation that the results of POE might not be released and seen by interested parties. Lack of dissemination of POE's result may cause reluctance from the people who have been interviewed for the purpose of POE. Furthermore, it is still unclear how the organisation who are responsible for conducting POE actually follow up on it (Vischer, 2002). However, once POE is conducted, the result from it can be distributed in many directions, for example to facility managers, landlords, building owners, planners, designers, researchers.

3. Methodology

In order to explore the research question and sub questions, the applicable methodology was selected. For this master thesis, the single case study was chosen according to the research matrix and different forms of case studies presented by Yin (2013). In the first sub-chapters the research approach is described and the case study selection is justified. This is followed by presenting the chosen methods of data collection such as, interviews, walking surveys, on-site observations according to Gehl's 12 quality criteria and observations by using *System for Observing Play and Recreation in Communities* (SOPARC). Furthermore, this chapter provides a description of the data analysis process.

3.1. Research approach

The theoretical part of this master thesis is informed by urban research. This study is not based on one single theory, but combines aspects from work of different urban theorists. According to Ankersborg and Boolsen (2007), this approach is needed when one theory cannot cover all aspects of the master thesis. Undeniably, the combination of different theories will strengthen the analysis of the MediaCityUK. Moreover, the created framework will help to meet our study objectives. Selected theories focus on the links between use of the outdoor public space and post

occupancy evaluation. These specific theories were chosen in a way to be complied with the research question, this master thesis is inspired by works of Gehl (2013), Whyte (1980), Lefebvre (1991), Lynch (1960). Lefebvre's three dimensions will provide a constructive help in order to investigate the problem area. The analysis of interviews with professionals overlaps with Lefebvre's '*perceived space*'. These interviews will show the conceptions and discourses of planners, administrative bodies and BREEAM representative involved in the MediaCityUK project. The analysis of the case of MediaCityUK corresponds to Lefebvre's '*conceived space*', and includes related articles and texts about the project that were found on the local news websites, city website or the MediaCityUK social media, planning documents from City of Salford and local zoning plan of the development. These are the documents which conceptualized space of planners and scientists. The analysis of collected data, such as intercept surveys with users of the place and observation of the site is related to what Lefebvre calls '*lived space*'. These collected data reveal the '*lived*' moments of the inhabitants and their actual experience of space in everyday life. Based on this framework, conclusions and interconnections which will occurred in the analysis will supplement a discussion section.

3.2. Case study selection and justification

Saunders (2009) claims that one or few research strategies can be used for the purpose of answering a research question. Based on the analysis of the available strategies, a 'case study' has been chosen as the most applicable strategy. The main reason of choosing this particular strategy was the fact that 'case study' is highly relevant to the proposed research question. It is assumed that the case study will gain rich insights of the importance of the post-occupancy evaluation. Furthermore, the 'case study' can be an efficient strategy in order to develop or explain a theory (Ragin and Becker, 1992). Over the years, the concept of 'case study' has been studied by many researchers (Ragin & Becker, 1992; Stake, 1995; Robson, 2002; Yin, 2013). According to Stake (1995) claims that, the aim of 'case study' is to investigate the activity, complexity and particularity of the case. Robson (2002) argues that the case study and its analysis should be supported by multiple sources of evidence. 'Case study' can perform as an 'instrumental case study' - to

provide a more general understanding of a problem or it can serve as an 'intrinsic case' - to deepen the knowledge about the particular issues (Stake, 1995).

In this master thesis a case study shows characteristics of 'intrinsic case'. The role of this 'case study' is to focus on the particular problem area and go deeper within its exploration. Furthermore, used approach will allow to conduct more precise analysis of the existing issues related to the post-occupancy evaluation.

The case study was selected based on the several requirements. The project must meet the following criteria:

- To collect the data and visit the site project must be located in Europe
- Project must be certified in BREEAM Communities scheme
- Chosen urban project must offer an access to public space (e.g. a plaza outside of buildings, a park, a playground)
- All the project documentation must be available in English to avoid getting lost in translation, risk of the data validity
- The project is going to expand and have its second phase

The only project which met the described criteria is the *MediaCityUK*, located in Salford City, United Kingdom. Detailed description of the case can be found in Chapter 5.

3.3. Data collection

The data collection consists on: 1) interviews, 2) intercept surveys, 3) on-site observation conducted according to 12 Gehl's quality criteria and 4) observations conducted using SOPARC tool. This data collection approach allows to obtain a broad base of knowledge on the topic and to get an overarching view on the case. The data collection approach is inspired by Yin's (2009, p. 102) description of the six common sources of evidence and principles of data collection. Presented by Yin (2009) sources of evidence and principles of data collection will help to structure and organize the required data.

3.3.1. POE

Post-occupancy evaluation is one of the key method of collecting data for the purpose of this report. There are several ways and approaches to POE regarding the way it can be conducted. Methods and tools which might be use for carrying out POE can be both quantitative and qualitative and can be divided into three categories which are presented below (Meir, 2009).

- Measurements, monitoring, sampling

This approach takes into account parameters which can be easily measured such as temperature, relative humidity, air movement, light intensity, noise level or pollutants. Those examples are mainly used inside the buildings however different parameters can be also measured within urban space. This method is an example of the quantitative data collection without the interaction with users of the evaluated object. Measurements bring straightforward data. For the purpose of this report, measurements will be taken using SOPARC tool (4.3.4). This tool allows for the more structured observations of the space. Observations are based on the protocol which makes the process organised and precise entering data such as the number of parks users, their gender, age, and physical activity.

- Surveys, questionnaires, cohort studies, task performance tests

According to Meir (2009), some researchers consider those methods as very accurate and representative as it is believed that well-constructed survey is able to provide 80% needed information. This approach focuses on the relationship between the evaluated object and the direct user. This approach is not that straightforward as measurements because each individual person has or might have different perception of the evaluated object. An average questionnaire should not be long and should take no more than 5 minutes, otherwise the responded might feel tired and overload with the amount of questions. For the purpose of this report, walking surveys with 29 questions will be asked to the outdoor space users. Moreover, interviews with professionals will be conducted in order to get a better insight into the topic.

- Document analysis, on-site observations

Observations can give a more complex picture about the activities that are being performed in the evaluated space. Observations can provide more precise data about particular activity. It shows the whole picture how such as activity was carried out and observe any other interactions which might happen during this process. Whitemyer describes this as “*difference between asking people to explain what they are doing versus watching them doing it*” (Whitemyer, 2006, p. 9). On-site observations will be conducted for the purpose of this project in order to make an assessment of the current space in terms of available facilities.

3.3.2. Intercept survey

Intercept survey is defined as “*a survey conducted in-person in a public space*” (Gehl Institute, 2016). According to Lynch and Mannion (2016) this type of survey can generate richer data as participants are feeling more connected to the surrounding environment. During an intercept survey both researcher and participant have an opportunity to better perceived the evaluated urban space. It should be emphasized that, a survey conducted in a site can give more precise feedback regarding the specific area, because of the interaction participant - researcher and participant - surrounding environment. Furthermore, conversation with a researcher helps participant to respond in a straight and fast manner. When surveys are distributed directly to homes or offices several errors may occur (Edensor, 2007). Usually surveys filled out at home or office provide less feedback, e.g. respondents spend too much or not enough time on questions, they are not familiar with a subject of the study or they do not care about a survey. Thus, intercept survey will help to receive real-time responses and reach every age group.

The intercept surveys focus on the daily users of outdoor public spaces, therefore the participants group considered four different groups such as: people who work in MediaCityUK, residents of MediaCityUK, students at the Salford University, located in MediaCityUK and residents of Salford who live outside of MediaCityUK. Survey's questions were established based on the focused group profile and in order to explore the problem area. The survey has an aim to know the user's satisfaction and get to know to what extend the outdoor urban space is being used by different

groups of people. Furthermore, the survey will provide a better understanding of the local community and will identify current problems regarding use of MediaCityUK's outdoor space. Moreover, this method will provide a fruitful insight concerning the importance of the outdoor space in MediaCityUK. The survey was prepared in a way to be adjustable to different respondents. The questions, intentionally, have been prepared in a semi-closed way in order to make a survey practical and easy to conduct from the respondent's perspective. Moreover, semi-closed question are easier to be analysed. However, the option for having a personal opinion was always left as an option in each question.

Intercept surveys study were conducted usually between 11 AM to 15 PM, during each day from 25th to 29th of April 2017. During those 6 days interviewers managed to conduct 100 intercept surveys. Interviewers usually approached respondents seating on benches or standing and also those who was waiting for a tram. Before filling in the survey, the respondents were informed about purpose of the master thesis, in few cases interviewers had to read questions to the respondent and based on the answers was filling out the questionnaire.

This method also has its limitations, and these limitations will be take into account in the analysis. It needs to be noted that sample of intercept survey is small, and might be not representative of all users. Furthermore, the respondents' group consist of people who say 'yes' and do not reject the participation in survey. What is more, survey is limited by time and space, because this method requires a person to collect data.

Intercept surveys scheme can be found in Appendix 1.

3.3.3. Interviews

The individual experience of the person who is being interviewed gives the deeper understanding into particular issue (DiCicco, 2006). However, the interpretation of the interviewee depends on the interviewer. In general, conducting interviews are the way to better understand the particular phenomenon and get a rich description about the desired issue. There are three different types of interviews such as unstructured,

semi-structured and structured. The most commonly used interview is semi-structured and in that case the interviewer needs to prepare questions in advance with the additional possibility to ask some more question along the interview (DiCicco, 2006).

For this master thesis, an individual semi-structured interview approach was chosen. The knowledge about the project and its context were gathered through interviews with 4 different experts engaged in MediaCityUK development (Tab. 1.). The interviews allowed to understand different points of view of MediaCityUK development, as well as, it was a chance to get to know the opinions of experts on the role of post-occupancy evaluation. Meeting with professionals also helped to get a broader picture of the Salford City history and the city regeneration program. Furthermore, it was a chance to get a necessary knowledge about the early-stage collaboration between the partners (politics, administration, assessors, investor and inhabitants) and to obtain information of the involved parties regarding MediaCityUK project.

The interviews were conducted in the period from the 25th to 27th of April 2017. The development of the interview scheme and the process of interviewing was informed by several publications on qualitative research using semi-structured expert interviews (DiCicco 2006; Meuser and Nagel, 2009; Weiss, 1994). All interviews were recorded, as well as, notes were taken during the interviews.

Table 1. Description of Interviewees

Name	Professional background	Affiliation	Relationship to the MediaCityUK	Interview date
Becca Warren	Energy Consultant/ BREEAM Communities Assessor	KO Energy Ltd	Becca Warren was one of the Sinclair Knight Merz consultant and the BREEAM Communities Assessor of MediaCityUK	26.04.2017
Francis Mills	Technical Director	Frank Mills Consulting	Frank Mills has played a key role in piloting the first BREEAM Communities pilot project - MediaCityUK. Back then he was Technical Director at Sinclair Knight Merz – company responsible for BREEAM Communities certification.	25.04.2017
Derek	Head of	Peel Group	Derek Elliot joined the project at 2008,	26.04.2017

Elliot	Technical Services		and he was the Building Services Manager and he was representing Bovis Lend Lease company. He was responsible for project coordination, contract management and coordination, completion and sign-off of the estates major electrical, heating and cooling infrastructure. He represented the MediaCityUK's investor for the purpose of this interview.	
Tim Hartley	Principal Planning Officer	Salford City Council – Urban Vision Department	Tim Hartley was engaged in creating and proposing the Salford Quays new regeneration strategy.	27.04.2017

3.3.4. On-site observations according to Gehl's 12 quality criteria

For this master thesis, on-site observation will be conducted with a use of Gehl's 12 quality criteria. According to Jan Gehl (2013, p.18) *“many fine squares and streets, possesses a number of elementary qualities, which can be analysed, evaluated and assessed”*. The results of evaluation might help to improve the areas which achieved very low evaluation score. Gehl's 12 quality criteria should be treated *“as a way of looking at the relations between needs of people and the physical environment as a whole”* (Gemzoe 2006, p. 4). The role of the evaluators is to understand the needs of the users' groups and the issues of their surrounding environment. Gehl and Gemzoe claim that only after evaluation it is possible to start all the improvements of an urban space. Furthermore, authors state that 12 simply criteria allow to create a space *“where people will be able to use all their human senses and enjoy walking as well as staying”* (Gemzoe, 2006, p. 11).

The story of the Gehl's 12 quality criteria begins in his one of the earliest studies, *Life Between Buildings* (first published in 1971). In this book Gehl introduces themes of walking, standing and sitting and also presents the nature of human senses. Those findings started a way of development and creation of 12 quality criteria. Gehl's 12 quality criteria are divided into three groups: protection, comfort and enjoyment (Fig. 3.).

Criteria from the protection group focus on how to reduce and eliminate unpleasant users' experiences, therefore "*reasonable protection against risk, physical injury and unpleasant sensory influence, the negative aspects of climate in particular*" (Gehl, 2013) should be considered. Users of a public space need to be kept safe from accidents, insecurity and discomfort. Good quality space should provide a feeling of safety, users should not experience a fear of being run down or remain on constant alert. Broadly speaking, well designed city spaces should provide good conditions for pedestrian traffic. Another important criterion in this section is crime prevention. Authors claims that dark, deserted spaces and streets often promote a feeling of insecurity. Usually people feel safer when the different amenities are located around the public space, e.g. housing, offices, shops or restaurants, in this way the area is well lit with an additional source of light from stores and restaurants, what is more there are people who live nearby what is the signal that area is not abandoned. The third factor deals with protection against uncomfortable sensory experiences such as unpleasant smells, pollution or adverse weather conditions. It should be emphasized that the protection quality can be recognized as good only if all the criteria are fulfilled.

Criteria from the comfort group are dedicated to the quality of walking and staying in a place. Public space should create an opportunity to engage a user in some activity like: walking, standing, sitting, playing as well as should create a possibility for seeing, hearing, talking and self-expression. According to Gehl (2013) these activities are the most important activities underlying their use of public space. Place should be designed in a way when users can walk freely. Moreover, users should not experience any discomfort when they stand or sit. Good quality comfort can be achieved when the edges of the public space are well designed, for instance "*people prefer to stay at the edges or border zones with their backs well protected*" (Gamzoe 2006, p. 7). Urban public space should also provide an opportunity for looking, listening and talking, in this way just invites to social activities. Good city space is characterized by its multiple uses, therefore it is important to use the space for both passive and active recreation.

Criteria from the enjoyment group involves ensuring "*a good human scale, opportunities to enjoy the positive aspects of the climate in the region, as well as*

proving aesthetic experiences and pleasant sensory impressions" (Gehl 2013, p. 238). The value of the public space is highly determined by quality of attractions and special opportunities which are offered. Gehl recommends (2013) to create public spaces on a human scale, with fine details, quality materials and suitable street furniture. Furthermore, authors emphasize that well-used public space must also provide opportunities to appreciate the local climate and unity of the community. At least, public space should offer an experience to the particular user. The individual could be amazed by a fine view or interesting sensory impression, so as to create a good experience and encourage user to come back again.

Observers assess the quality of the MediaCityUK's on the 25th of April 2017. The assessment was conducted independently by two observers and afterwards the results were compared. The results from the two independent observations were the same. According to Gehl (2011) each criterion should be rated as 'good', 'average', or 'poor'. However, it is not clear how to assess the final results of each criterion. Therefore, it is necessary to identify individual metrics within each criterion. For this master thesis standards for each criterion were assigned based on the Gehl's literature, mainly *Life Between Buildings* (2011) and *Cities for People* (2013), and optimized to the UK's conditions. Description of each criterion and specific rates can be found in the analysis chapter.

P R O T E C T I O N	1. Protection against Traffic & Accidents - traffic accidents - fear of traffic - other accidents	2. Protection against crime & violence (feeling of safety) - lived in / used - streetlife - streetwatchers - overlapping functions - in space & time	3. Protection against unpleasant sense experiences - wind / draft - rain / snow - cold / heat - pollution - dust, glare, noise
	4. Possibilities for WALKING - room for walking - uncluttered layout of streets - interesting facades - no obstacles - good surfaces	5. Possibilities for STANDING / STAYING - attractive edges «Edgeeffect» - defined spots for staying - supports for staying	6. Possibilities for SITTING - zones for sitting - maximizing advantages primary and secondary sitting possibilities - benches for resting
	7. Possibilities to SEE - seeing-distances - unhindered views - interesting views - lighting (when dark)	8. Possibilities for HEARING / TALKING - low noise level - bench arrangements «talkscapes»	9. Possibilities for PLAY / UNFOLDING / ACTIVITIES - invitation to physical activities, play, unfolding & entertainment - day & night and summer & winter
C O M F O R T	10. Scale - dimensioning of buildings & spaces in observance of the important human dimensions related to senses, movements, size & behaviour	11. Possibilities for enjoying positive aspects of climate - sun / shade - warmth / coolness - breeze / ventilation	12. Aesthetic quality / positive sense-experiences - good design & good detailing - views / vistas - trees, plants, water
E N J O Y M E N T			

Figure 3. Gehl's 12 quality criteria (Gemzoe, 2006, p.12)

3.3.5. Observational analysis - SOPARC

To supplement the data collected from the intercept surveys the System for Observing Plan and Recreation in Communities (SOPARC) is used. The aim of this observation is to understand the nuance of how people move and use the MediaCityUK's outdoor public space. This method allows to record how users of this area "vote with their feet" (Gehl Institute, 2016). Furthermore, this method will help to uncover use patterns by different group users and in different time period.

SOPARC tool was designed to obtain information on area users and their physical activity in community environments. This method uses momentary time sampling to record observations (McKenzie et al., 2006; Active Living Research, 2016). Observer should sweep visually from left to right across the target area to conduct a single observation. SOPARC allows to create various characteristics about the selected area. Series of observations can provide an information about e.g. the number of park users, their gender, age, level and type of physical activity. In recent years many studies have used SOPARC to observe park use (Hino et al., 2010; McKenzie and van der Mars, 2015; McKenzie et al., 2006). Furthermore, these studies confirm that a direct observation is a useful and valid method for assessment of user's physical activity.

For the purpose of this study the MediaCityUK's outdoor public area was divided into 5 specific observations zones of varying size: *The Stage #1*, *The Green #2*, *The Green #3*, *The Green #4* and *Waterfront #5* (Fig. 4.). Smaller observation areas allowed for more accurate observations and provide an opportunity to distinguish different users' activity within specific zones. Observer no. 1 was scanning - *'The Stage #1'* and *'Waterfront #5'*, when simultaneously observer no. 2 was scanning - *'The Green #2'*, *'The Green #3'* and *'The Green #4'*. These areas were scanned visually and swept from the left to right by observers. The observers scanned each target area to obtain information about users of the specific observation zone such as, gender (female/ male), age group (child/ teenager/ adult/ senior), gender, age group, activity level (sedentary/ walking/ vigorous) and type of activity (sitting/ standing/ cycling/ jogging etc.). User's physical activity level was coded depending on type of the physical activity, e.g. coded sedentary when user is lying down or sitting, coded vigorous when user is running or cycling, coded walking when user is walking a dog. Age groups were divided into children, teenagers, adults and seniors. Physical activity levels and age group scans were done separately for males and females to be possible identify the possible difference between gender

All zones were observed for one week, except Friday in order to identify accurately the difference between weekend and weekdays a total of 7 days of observation. All target areas were assessed during 4 different periods: 9:30 AM, 12:30 PM, 16:30 PM and 20:30 PM. These hours were selected to maximize observation of diverse group

of users (children, teenagers, adults and seniors) and therefore, selected hours are related to the daily life cycle. During these selected hours, it was expected to observe the highest number of people who visit the area independently as well as with families. Each zone was observed 24 times over the study (4 workdays and 2 weekend days) and each observation was timed to last 10 min. Conditions of each observation zone were also recorded to assess whether the area was accessible, usable, equipped, supervised, dark, empty, or whether it provided organized activity. Moreover, during each observation the weather conditions were recorded. All observations were followed by SOPARC protocol (McKenzie, 2006). However, the ethnicity of users was not recorded during the observations. It was only one modification to the SOPARC observation form. Ethnicity of users was not considered, because of the lack of the relevance to the study. The SOPARC' observations form can be found in Appendix 2.



Figure 4. Observation area divided according to SOPARC protocol (McKenzie et al.,2006)

This method also has its limitations, and these limitations will be take into account in the analysis. It needs to be noted that SOPARC protocol does not consider collecting economic data about users of the space. Furthermore, SOPARC tool is limited by time and space, because this method requires a person to collect data.

3.4. Data analysis

Once the data had been collected, the data analysis took place. Analysis of post-data-collection included processes such as data entry, coding, editing and aggregating. The primary data of this master thesis included the expert interviews, surveys with users of MediaCityUK's outdoor public space and on-site observations with a use of SOPARC tool. The secondary data consisted of data already produced and publicly available (Leedy and Ormrod, 2005), such as scientific articles about urban studies and post-occupancy evaluation, books about urban public spaces and also Salford's local zoning plans and articles about MediaCityUK project. In order to answer the research, question each group of collected data has to followed the three-step rule presented by Monette et al. (2002). The first step is to reduce the amount of data and this can be done by categorizing, sorting and summarizing. The second step is to represent an organised data and this may include text, graphs, charts, etc. The third step is to identify the patterns and connections within a data, and create an interpretation and present the conclusion.

The analysis of the interviews was inspired by the analysis of expert interviews described by Meuser and Nagel (2009). In order to analyse the interviews comprehensive notes were written up based on recordings. The notes were coded according to topics, themes, categories and theoretical approaches. The coding structure allowed for comparison between the interviews. Furthermore, coding helped to structure argumentation and interpretation of stories about the case and also the to identify the key incidents in the MediaCityUK project. The codified data were used for both the analysis and discussion.

The one hundred intercept surveys were completed on paper by respondents and in a next step each survey was entered to the Google Forms on-line tool. The data was processed based on the available options and modes of the tool. The tool aggregated data from each question and then translated result into pie chart for each question. Results will be presented in the chapter 6.4.

At first the data from the on-site observations was collected on paper and then transferred to the exact the same form in the Microsoft Excel worksheet. The program allowed for the overall analysis of data. Applied formulas generated data about total number of recorded users of MediaCityUK's outdoor public space, as well as detailed information about this big group of individuals such as gender, age group, level of activity and type of activity. The data from the 25th and 29th of April 2017 were translated into charts and explained in detail. The aggregated data will be presented in the analysis chapter.

4. How to assess sustainability?

In this chapter, the post-occupancy evaluation (POE) in relation to the urban sustainability tools will be presented. The aim of this chapter is to discuss the importance of the POE as a part of the neighbourhood certification.

4.1. Sustainable Development

Together with the emergence of sustainable tools for urban areas, the term of sustainable development started to be used accordingly. Sustainable development does not have one single definition as it can be related to many different disciplines (Turcu, 2013). The emergence of sustainable development was a result of concerns related with urban poverty, urban dereliction and ecological destruction around 1980s (WCED, 1987). World Commission on Environment and development defined sustainable development as "*development meeting the needs of the present without compromising the ability of future generations to meet their own needs*" (WCED, 1987). What is more, the word sustainable is no longer related only with environmental issues but with economic, social aspects, too (Dempsey, 2011). Another term in relation to sustainable development is a sustainable community. As defined by Egan "*sustainable communities meet the diverse need of existing and future residents, their children and other users, which contribute to a high quality of live and provide opportunity and choice*" (Egan, 2004, p. 7).

In the article written by Arayici (2014) MediaCityUK is considered as a sustainable

place especially when it comes to economic and environmental aspects. However, the same article outlines also some threats of the whole MediaCityUK investment. MediaCity is being called as “*an island for wealth*” which might indicate that the social aspect can be forgotten (Arayici, 2014). The project is compared to London Dockland project characterised by the economic success, however with a failure when it comes to social sustainability and with a treat of alienating the local community. Referring to the previously mentioned definition about sustainability, the area can achieve a success only when all the aspects such as environmental, economic and social are fulfilled. The article is ended up with the question whether MediaCityUK can become as strong regarding social aspects as it is in relation to environmental and economic aspects. Even though, the project seems not to meet social sustainability, there is always a chance for improvements especially taking into account that MediaCityUK is going to expand into its second phase. Simple communication with people is the best way to get information what is missing considering the social aspects. Here, POE can serve as a tool in order to measure the level of people satisfaction.

As it was mentioned by Haapio (2011) that benefits of utilising assessment tools and user experience would be interesting research area, and beneficial in the development of tools, MediaCityUK seems to be a perfect case study to measure social sustainability. Due to the fact that social aspects could be measured in many ways, this report will have focus of investigating people satisfaction regarding urban outdoor space within MediaCityUK.

4.2. Tools for urban sustainability

Neighbourhoods are becoming more and more interesting subjects when it comes to sustainable development. Urban sustainability and different tools to measure it, are increasingly gaining attention in European policies (Devuyst, 2001), however there is no public regulation in that field and tools are used voluntary (Jensen, 2007). So far, different bodies such as researchers, consultants and other national actors have developed a variety of different tools for urban sustainability for example EIA (Environmental Impact Assessment), SEA (Strategic Environmental Assessment), ecological footsteps, green accounting, multi-criteria assessment methods, indicator

systems, frameworks, guidelines for urban sustainability and others (Jensen, 2001).

Currently, there are few multi-criteria assessment tools which are measuring the level of sustainability within particular urban projects. Examples of those tools are BREEAM Communities (UK), LEED Neighbourhood Development (USA), CASBEE Urban Development (Japan), DGNB for Urban Districts (Germany), EarthCraft Communities (USA Atlanta), Green Star Communities (Australia), Star Community Index (USA), GSAS/QSAS Neighbourhoods (Qatar) and Green Mark for Districts (Singapore) (Sharifi, 2015). Most of the time, above mentioned tools are used in their country of origin, however, some of them are spreading and using in different countries. For example, BREEAM scheme is widely used across the whole Europe.

Green certification for neighbourhoods started to be used in Europe around a decade ago (Wangel, 2015), and the main driving force for it was Agenda 21. Even though, neighbourhood certifications are relatively young tools, they have been already discussed and evaluated by the scientific community for example why tools for urban sustainability are not used more often taking into account that there are many available tools nowadays (Jensen, 2007). In the project developed by Cardiff University called PETUS (Practical Evaluation Tools for Urban Sustainability) both reasons for not using tools as well as some motivation for using them have been presented. Moreover, there is also a gap in the research world of urban tools. As it is argued by the Haapio, *“the benefit of utilising assessment tools and user experience would be interesting research area, and beneficial in the development of tools”* (Haapio, 2011, p.168). Taking into account this statement, POE which is going to be presented in this report is a small step forward in filling the gap which was noticed by Haapio.

4.3. BREEAM Certification

Due to the fact that this report is based on MediaCityUK case which is certified by BREEAM Communities, this particular tool will be described more deeply.

As it was mentioned before, BREEAM is a leading sustainability assessment tool for different kind of projects. BREEAM covers mainly building certification, however is started to certify infrastructure projects such as bridges and above-mentioned

communities. Undoubtedly, BREEAM is the most popular method for buildings as it is almost 561,300 already certified buildings and 2,263,300 buildings being registered for the assessment since BREEAM was developed in 1990 (BREEAM website). When it comes for BREEAM Communities scheme, so far there is 8 projects which have been certified and another 18 is being registered. The first BREEAM Communities certification was awarded in 2008 for MediaCityUK project in Manchester in Great Britain. Other countries which use BREEAM Communities scheme are Sweden, Norway, Finland, Iceland, Belgium and United Arab Emirates as it can be seen on the figure below (Fig. 5.).



Figure 5. Map of BREEAM Communities certified projects (BREEAM website, 2017)

BREEAM Communities scheme has an aim to improve, measure and certify large-scale development plans in a sustainable way taking into account three different aspects such as environmental, social and economic. The manual consists of 51 criteria while 23 of them are compulsory. The issues within manual are divided into five different categories such as governance (1), socio-economic wellbeing (2), resource and energy (3), land use and ecology (4), transport and movement (5). Within these categories, there are issues such as flood risk assessment, ecology strategy, design review, public realm, green infrastructure, local parking, landscape,

community management of facilities, local vernacular, cycling facilities or public transport facilities. Moreover, one of the key mandatory issue which stands at the first place in the certification process is consultation plan (GO01). Consultation plan is seen as a way to ensure the needs of local community as this is the equivalent of conducting public participation (BREEAM Communities Manual, 2012).

It is assumed that BREEAM Communities helps to create sustainable neighbourhoods that are in line with environment, people and at the same time are economically successful. What is more, BREEAM has an aim to encourage different parties such as developers, local authorities and master planners to collaborate from the very early stage. Thanks to BREEAM Communities it is easier to recognise and assess the development at an angle of sustainability (BREEAM Communities Manual, 2012). However, despite many advantages, there are also some drawback in relation to BREEAM Communities certification. The biggest disadvantage which can be noticed is the lack of post-construction evaluation as BREEAM Communities scheme relies only designs and plans for the development (BREEAM Manual, 2012). In the article written by Callway (2016), lack of validation of archived points at the design stage of the development is seen as a challenge for the certification and it urges for following-up whether the criteria are actually fulfilled at the post-construction phase (Callway, 2016). Derek Elliot, the MediaCityUK's representative claims that the post evaluation phase would be useful, as he explains: "*a lot of things change the originals design - as it is a lot of pushes from the construction site of the space, therefore it is always good to revisit.*" (Elliot, 2017). Both, the literature review and the interview confirm the need for the post-construction evaluation. Taking into account the most popular neighbourhood certification schemes, it can be seen in the table 2. that, BREEAM Communities and DGNB do not evaluate project at the completion phase in comparison to LEED and CASBEE.

Table 2. Comparative summary of four sustainable neighbourhood standards (Callway, 2016)

Scheme	BREEAM Communities	LEED Neighborhood Design	CASBEE for Urban Development	DGNB Urban Districts
Institution	Build Research Establishment (BRE)	US Green Building Council	Inst. for Building Environment & Energy Conservation (IBEC)	DGNB
Country of origin	UK	USA	Japan	Germany
Original and recent version	2008 & 2012	2009 & 2014	2006 & 2014	2012 & 2014
Stages of evaluation	Design phase (outline and detailed designs)	Planning, design and completion phases	Planning, design and completion phases	Design phase (outline and detailed designs)

In November 2013, United Kingdom Green Building Council (UK-GBC) did organise an online discussion between UK-GBC members about BREEAM Communities scheme. At the beginning of the debate, the UK Green Building Council itself mentioned areas for improvements, addressing lacking the post-occupancy evaluation as something to bring forward in the future (UK GREEN Building Council, 2013). The same issue was covered by UK-GBC members as they stated: *“We need effective post-occupancy evaluation and to share the results to establish what’s working well and what things need to be refined and enhanced”* (Somper, 2013), *“I would like the tool extended into post occupancy, because after all it’s the result that counts”* (Bergin, 2013). This ongoing debate about improvements is a sign of need of POE. As it is stated on the BREEAM website, the Building Research Establishment has a plan to publish new handbook in autumn 2017, therefore there is a chance to upgrade the certification process and add additional criterion related to post evaluation.

As distinct from BREEAM Communities, BREEAM for Buildings scheme consists two phases of certification. The first phase is called BREEAM Design Stage and the building is assessed based on the construction project, while the second phase of the certification is called BREEAM Post Construction Stage and the building is assessed based on the executive project. The purpose of having two-phase certification is to evaluate whether the proposed building’s solutions are implemented afterwards. Comparing BREEAM Communities and BREEAM for Buildings, this is exactly what is missing on the neighbourhood scale certification.

5. Case study: MediaCityUK

This master thesis explores how post-occupancy evaluation of an urban outdoor space can be conducted using MediaCityUK as case study. The main driver of using the MediaCityUK was the fact that the development is going to have its second phase, therefore the post occupancy feedback gained from the first phase could be used in the future development.

5.1. History of the Salford Quays

MediaCityUK is located in the former dockland built by the Manchester Ship Canal Company in the XIX century. Around 1970s the docks started to decline and became an abandoned and neglected place (Fig. 6.). Around 1980s the City of Salford bought a major part of the dockland and started regeneration programme there. At the present, MediaCityUK is known as a substantial regeneration project (Sharifi 2013). The regeneration of Salford Quays is known as one of the biggest and important brownfield redevelopment project in Western Europe (NeT-TOPIC 2009) and the UK's first and the most significant urban regeneration programme started in 1985 under the Salford Quays Development Plan. It was a high risk that the former docks will become a wasteland, however the regeneration programme prevented to experienced that. Since 1986 the area is aiming to create a business, cultural and residential district. MediaCityUK development is the latest phase of the Salford regeneration programme where there is already a creative business district together with other functions such as education and leisure (NeT-TOPIC 2009).

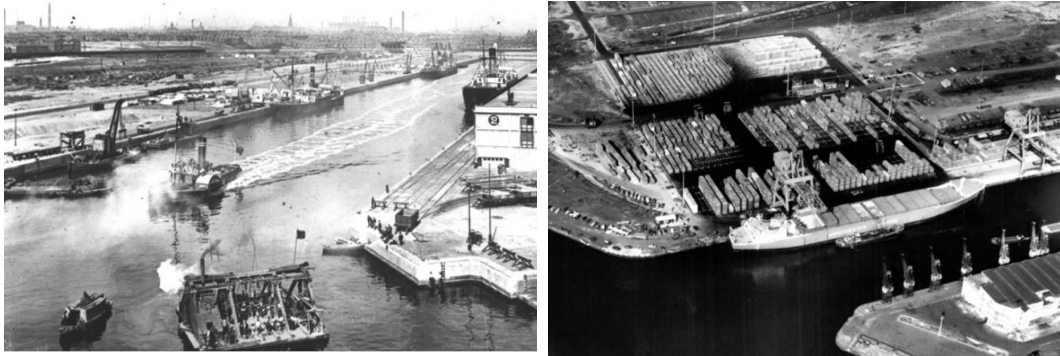


Figure 6. The Salford Docks in 1970 (PEEL Group commercial materials)

5.2. MediaCityUK and existing policy

Currently the area of MediaCityUK comes within MX 1 Policy and it assumes the area to be a vibrant mixed-use with activities (Fig. 7.). What is more, the policy MX 1 covers the time period between 2004 and 2016, therefore the MediaCityUK was supposed to apply to MX 1 Policy as the project started in 2008. According to the policy this area was supposed to include housing, offices, tourism, leisure, cultural uses, education, community facilities, retail and food drink uses, essential infrastructure and support facilities and knowledge-based employment. Considering the Policy MX 1, it can be said that the current outlook of MediaCityUK fulfilled the policy requirements. In 2015, the City of Salford proposed the new local plan for the next 20 years, however the plan is still being under construction. The new local plan (Salford City Council, Interactive proposals map, 2017) assumes that the development of already existing cluster of business in MediaCityUK should going towards an expansion of technology and creative hub which has the opportunity to continuously attract businesses related with digital and media character.

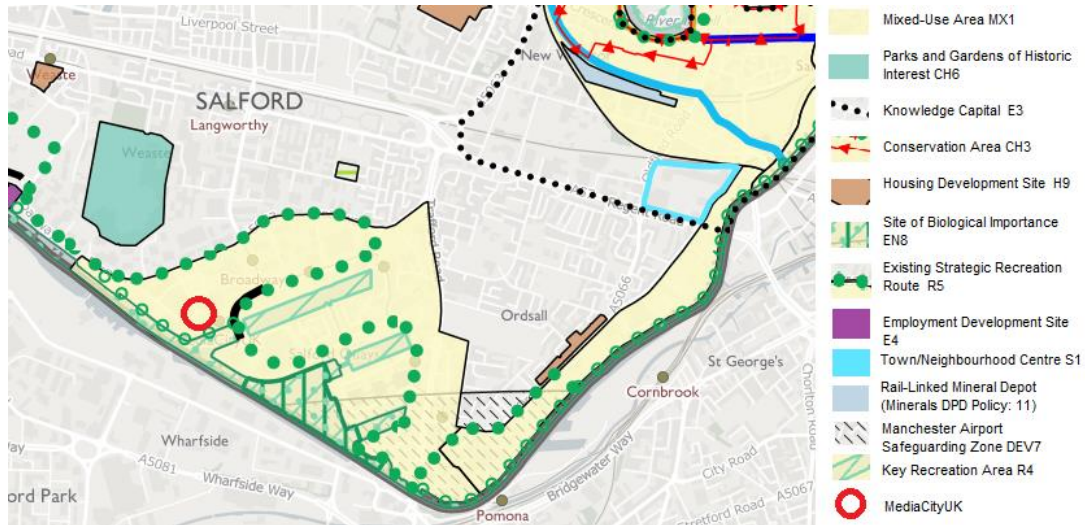


Figure 7. Local development plan (Salford City Council, Interactive proposals map, 2017)

5.3. Development of MediaCityUK

The project is already after its first phase of the development and the MediaCityUK will double its area over the second phase. The first phase considered the area of 15 hectares and was completed in 2011. The area is a mix of office space, retail space, residential buildings, hotel, 2 hectares of public realm including piazza for 5000 people, technical infrastructure, tram terminus, and a foot bridge across the Manchester Ship Canal (Fig. 8.). Place which was known previously as a separated district, today is characterised by a very good access by different types of transportation modes. The whole project was developed by Public sector partnership which was formed by the one of the biggest property company in the UK - PEEL Group, Salford City Council, Central Salford Regeneration Company and North-West Development Agency and (BRE website).

MediaCityUK is an example of a spectacular change from the post-industrial abandoned area into a liveable media city. What is important, MediaCityUK was certified by the BREEAM Communities scheme and has been awarded Excellent certification (5-grade scale: poor, good, very good, excellent and outstanding). It is estimated that certified area has a potential to be a working place for 15 000 people over the next ten years. In MediaCityUK there is 65 000 square metres of office space which is spread across five buildings and all of them are also certified by

BREEAM New Construction Building Scheme. The district has a potential to accommodate over 1000 businesses over the next years and provide opportunities for local entrepreneurs. What is more, despite five offices buildings, there are two buildings with residential function with 378 apartments. Other buildings is dedicated into hotel function and consist of 218 available beds.

MediaCityUK gives an excellent educational opportunity since the Salford University is located there. The new campus has a capacity for more than 800 students (BRE website). The place supposed to be a destination for spanning broadcasting, film, publishing, digital gaming, advertising, mobile, software, information and communication technology and academia. One of the biggest tenant who moved to MediaCityUK is BBC. The world's largest broadcast news organisation moved around 2500 employees to MediaCityUK. It was the result of relocating few departments which were previously located in London. According to Tim Hartley, it was clear that *"BBC set up a requirement to have a Metrolink connection"* (Hartley, 2017). Even though, the area was owned by a private investor, the city provided a tram connection as Hartley said *"Manchester wanted BBC to stay"* (Hartley, 2017). Therefore, BBC decision of moving to Salford was a catalyst of further influential requirements towards a project.



Figure 8. MediaCityUK (Peel Group commercial materials)

5.4. Public space

As it was mentioned before, 2 out of 15 hectares in MediaCityUK are dedicated into

public space. The urban space is divided into three different places such as piazza, park and waterfront (Fig. 9). Piazza has a room to accommodate around 5000 people and it covers an area of 0,4 hectares. The Green and The Stage (Piazza) separated from each other by a big double-sided screen. The piazza has an access to water and power supply. So far, there have been different events taking place such as fashion show, singing contest, triathlon, food festival. During the winter time, piazza is becoming an ice rink. Based on the promotional brochure of piazza, the place can host different events and accommodate variety of structures such as marquees, large outdoor stages, sport cars to promotional trailers as it is considered a good place for branding. The website of MediaCityUK has a special tab where all the future events supposed to be posted. However, the website which was accessed on the 5th of March 2017 shows no available events in the near future. The park was designed by Gillespies - landscape architecture studio, and it stretches from piazza to a ship canal and around the buildings. Architects designed the space in line with sustainability priorities. The design includes water features, green roofs, improved pedestrian space and cycle paths. Moreover, the project included the retention of existing trees on the site to keep the biodiversity values. Next to the water there is a lively boulevard with stepped terrace facing south down to the water's edge. As it is stated by the landscape architects, the public realm contributed to receiving BREEAM Communities certification (Yoneda, 2011). The place previously characterised by an industrial character today is seen as green oases where people can gather (MediaCityUK website). Within the green part, there are sweeping paths for strolling and jogging. The area was designed in a way to create an effect of undulating land which has an aim to reflect the waterside location and the waves. The greenery is a perfect place for adjacent employees of media offices buildings. The whole area is equipped with 382 in-ground LED lights controlled by the computer. Moreover, in the park was planted around 210 to keep the local biodiversity. Except that, there are granite and wood benches all around to sit and relax. The whole MediaCityUK project got several awards such as *BIFM Sustainability and Environmental Impact Award* (2013), *North West Regional Construction Award* (2011), *Royal Town Planning Institute (RTPI) Award* (2009) and *Salford Design Awards: Best Public Realm* (2010) (Yoneda, 2011).

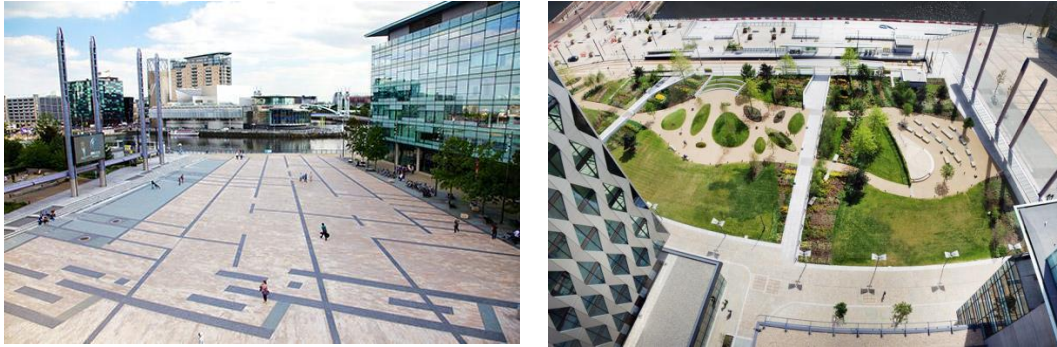


Figure 9. Piazza and outdoor urban space in MediaCityUK (Peel Group commercial materials)

6. Analysis

The analysis is divided into three parts while each of the subchapter (6.1, 6.2, 6.3) represents different methodology. First of all, on-site observations were conducted in order to assess the MediaCityUK outdoor space using 12 quality criteria developed by Jan Gehl. Secondly, System or Observing Plan and Recreation in Communities (SOPARC) was used in order to observe people's behaviour and draw some conclusion based on different activities which were observed at the site. The last part of the analysis includes post occupancy evaluation which was conducted by using a survey and asking people about their opinion considering different issues related with MediaCityUK as an outdoor urban space. This analysis will present the key findings and will open a discussion on the quality of this public space.

6.1. On-site observations according to Gehl's 12 quality criteria

The aim of this subchapter is to provide a detailed description of the MediaCityUK's outdoor public space. Based on the site observation pathways of the site, site amenities, community art, space for gatherings, safety of the place, and its accessibility were defined.

6.1.1. On-site observations scheme

On-site observations were conducted according to Gehl's 12 quality criteria. Observations were conducted between 10:00 AM to 15:00 PM on the 25th of April 2017. For the purpose of this assessment the MediaCityUK's outdoor public area was not divided into observations zones and the MediaCityUK's outdoor public area was considered as one space.

Each criterion was assessed one after another and was rated in a three-level scale: good, average and poor. However, it needs to be emphasized that this method is not fully standardised, because Gehl (2013) does not provide specific rules how to apply the rating of 'good', 'average' and 'poor'. Several urban studies (e.g. Dietrich and Kengyel, 2016; Peterson, 2017; Minucci and Righi, 2016) adapt the rating of the Gehl's 12 quality criteria based on the '*principles and guides*' found in the Gehl's books e.g. *Life between buildings* (2011), *Cities for People* (2013), *How to Study Public Life* (2013). Moreover, several ratings are inspired by the concepts of the main urban theorists such as, Whyte (1980), Lynch (1962) and Cresswell (2009). It should be noted that the individual metrics within each criterion should be also adjust to the national norms and the local climate conditions. The criteria rating in this analysis is inspired by the above-mentioned methods. For the purpose of this analysis the information from the European Outdoor Lighting Standards, the Noise standards in United Kingdom, the National Planning Policy Framework of United Kingdom and the City of Salford local planning policy were used for the rating of protection criteria. The Gehl's urban studies and the Gehl's 12 quality criteria diagram (Fig. 2.) provided an inspiration for the rating of comfort and enjoyment criteria. Detailed list of the adapted metrics within each criterion is presented in the table below (Tab. 3.). In the Methodology chapter 3 the method is explained in more detail.

Table 3. Detailed requirements for each criterion (inspired by Jan Gehl's 12 quality criteria)

PROTECTION	1. Protection against traffic and accidents	Good -area is located min. 10 m to a road and area is closed to the vehicular traffic
		Average - area is located far from a traffic road, but roads between office buildings are open to vehicular traffic
		Poor - area is located close to unsafe and noisy high traffic road
	2. Protection against crime and violence	Good -area is supervised by security guards and equipped with cameras
		Average - area is equipped with cameras
		Poor - area is not supervised and not equipped with any cameras
	3. Protection against unpleasant sense experiences	Good -places to hide both from rain and wind
		Average - places only to hide from wind or place only to hide from rain
		Poor - no places to hide both from rain and wind
COMFORT	4. Possibilities for walking	Good -minimum 2,5m for pedestrians travel, flat and maintained surface and curb ramps present in every direction at 100% of intersection crossing
		Average - less than 2 m for pedestrians travel, presence of uneven slabs or roots and curb ramps present in every direction at 75 - 99% of intersection crossing
		Poor - less than 1 m for pedestrians travel, dangerous or missing segments of sidewalk and curb ramps present in every direction at 75%or less of intersection crossing
	5. Possibilities for standing/ staying	Good -area is equipped with objects to lean back f.ex. guard rails, backrest surface; area has designated area for visitors f.ex. a square, a stage; area is attractive for user f.ex. contact with nature, unique landscape and architecture, entertainment function
		Average - area is well equipped, but creates only possibilities for walking - does not have designated area for visitors
		Poor - area is not equipped with any object to lean back and does not have designated area for visitors
	6. Possibilities for sitting	Good -benches to lean back
		Average - benches with no possibility to lean back
		Poor - no possibilities for sitting
	7. Possibilities to see	Good -well lit
		Average - lit, however the lighting creates an effect of a glare
		Poor - not lit
	8. Possibilities for hearing/ talking	Good -area is affected by noise <60 dB and is equipped with tables with benches
		Average - area is affected by noise 60 - 80 dB and is equipped only with benches
		Poor - area is affected by noise >80 dB and is not equipped with tables with benches
9. Possibilities	Good -area provides a permanent possibility for playing, unfolding or making	

	for play/unfolding/activities	any other activities
		Average - area provides a temporary possibility for playing, unfolding or making any other activities
		Poor - area does not provide any possibility for playing, unfolding or making any other activities
ENJOYMENT	10. Scale	Good -low buildings, vibrant urban space
		Average - middle-high buildings, semi-vibrant urban space
		Poor - high buildings, not a vibrant urban space
	11. Possibilities for enjoying the positive aspects of climate	Good -enjoying the sun, possibility to hide from the rain
		Average - enjoying the sun, no possibility to hide from the rain or conversely
		Poor - not enjoying the sun neither no possibility to hide from the rain
	12. Aesthetic quality/positive sense experiences	Good -quality design f. Ex. natural material use, both water and greenery
		Average - only water or greenery
		Poor - ack of water and greenery

6.1.2. Results

This subchapter will present the assessed Gehl's 12 quality criteria and their final rating.

1. Protection against traffic and accidents

Score - Good

MediaCityUK's outdoor public urban space is surrounded by offices buildings to the north, and by a waterway to the south (Fig. 10.). What is more, the pathways and streets between building are closed to the vehicular traffic. These walking paths and streets are designed and dedicated for pedestrians and cyclists. The Quays road is the nearest road located to the park area (The Green). The road is located in minimum 10 m distance to the park.



Figure 10. MediaCityUK land use analysis (Credits: Materna, 2017)

For these reasons MediaCityUK's outdoor public space can be considered as a fully protected against traffic and accidents. Pedestrians can be only exposed to accidents caused by cyclist or trams, however the probability of this type of accident is still very low.

2. Protection against crime and violence (feeling of safety)

Score - Good

MediaCityUK is characterised by the very high level of safety as there are plenty of security guards who are checking the area. During the site visit, the security guards have been noticed couple of times per day which may indicate that probably there are certain hours to do circuits. In order to move efficiently within the site, security use segways and use walkie-talkie to communicate with each other's (Fig. 11).



Figure 11. Security guards in MediaCityUK (Credits: Górska, 2017)

Except the security guards, MediaCityUK is equipped with 22 security cameras to control the area from the security base. The number of cameras is substantial, however it is necessary as there are events organised at piazza which can accommodate around 5000 people. Due to the fact that cameras are located in each of the urban outdoor space including park, piazza and waterfront the overall area can be assessed as a safety place; therefore, the good quality can be credited for this category.

3. Protection against unpleasant sense experience

Score - Poor

Manchester is characterised by a damp climate as it is mild and rainy mostly. Moreover, during the site visit, it was observed and experienced that MediaCityUK has wind corridors created by high buildings and strong wind. Due to the fact that there is no shelters to hide from the rain and from the wind in park, piazza and waterfront, the outdoor urban space got a poor remark (Fig. 12). The only places to hide from unpleasant weather conditions are pubs, restaurants and cafeterias, however the protection should have been provided also for people who do not want to spend money in above mentioned places.



Figure 12. Wind corridors between high buildings (PEEL Group commercial materials)

4. Possibilities for walking

Score - Good

MediaCityUK represents very good conditions in terms of walking. Both paths and pavements are comfortable and convenient for walking in park, piazza and waterfront. Moreover, there is enough room for walking especially in piazza but park and waterfront do not lag behind. MediaCityUK is adjusted for disabled people using wheelchairs. Even though there are stairs between piazza and park and between park and waterfront, there are always ramps which are not steep so everybody and even those with restriction on mobility can easily access each part of MediaCityUK (Fig. 13).

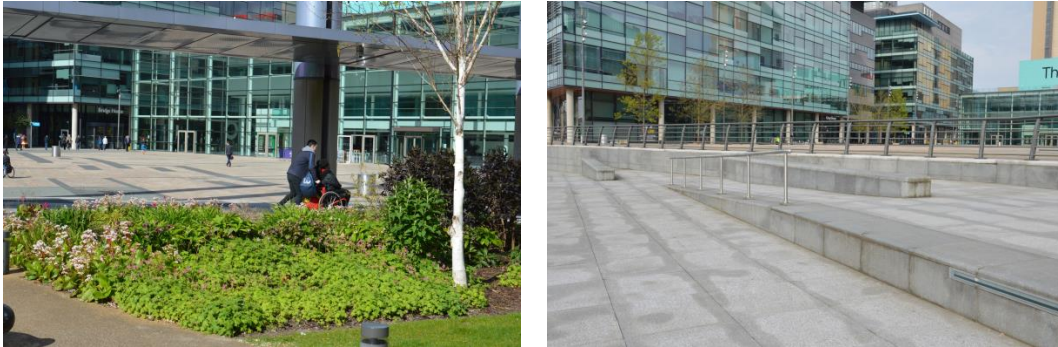


Figure 13. Pavements convenient for walking and well-adjusted to people on wheelchairs (Credits: Górska, 2017)

Considering above mentioned features of pavements and inner paths, MediaCityUK can definitely get a good remark.

5. Possibilities for standing/ staying

Score - Good

It can be said that MediaCityUK has defined spots for standing. Those places can be noticed in the park such as bar's shelter where people can stand and at the same time they can enjoy refreshments, this can encourage visitors for staying. When it comes to the waterfront, it has edges which invite people for staying too, as the waterfront barrier is comfortable to lean back (Fig. 14).

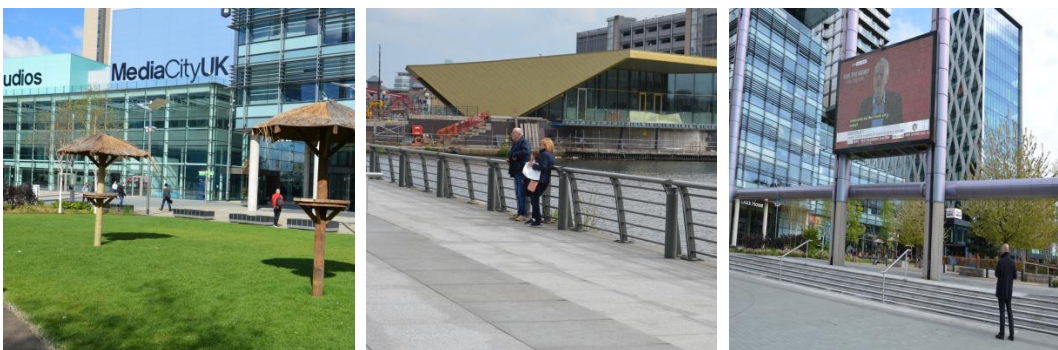


Figure 14. Places with a possibility for standing (Credits: Górska, 2017)

Piazza does also provide a possibility for staying as there is a TV screen with transmission of BCC news for 24 hours which provide a possibility for people to stay

in that place a little bit longer. Due to the fact that each of the space such as park, piazza and waterfront have some elements where people can stand and stay, MediaCityUK can got a good remark.

6. Possibilities for sitting

Score - Average

Each of the space such as park, waterfront and piazza are equipped with benches, therefore the possibility for sitting is provided. However, the biggest disadvantage concerns no possibility to lean back. Taking into account the whole MediaCityUK urban space, only two benches in piazza have the back support. Both park and waterfront do not have benches where people can lean back which does not provide the feeling of full relaxation (Fig. 15).

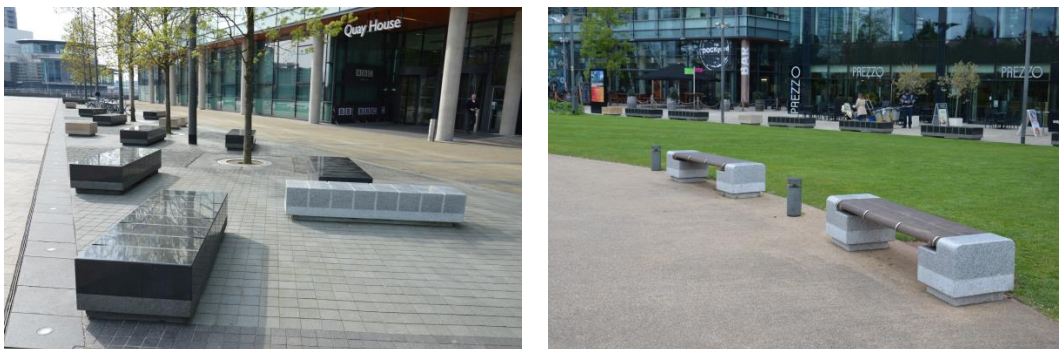


Figure 15. Benches with no possibility to lean back (Credits: Górska, 2017)

Due to the fact that MediaCityUK provides places for sitting in each area such as in park, piazza and waterfront but they are not enough comfortable, the overall score is average within this category.

7. Possibilities to see

Score - Good

MediaCityUK was designed by Chapman Taylor in a way that from each of the of the inner street the visitor can see The Lowry - a theatre and gallery complex, and all of

the buildings are located inside those lines. This combination makes The Lowry a dominant which can be seen from each of the places such as park, waterfront and piazza. It need to be mentioned that The Lowry is characterised by an interesting design and play a significant role in Salford, therefore the visitors from MediaCityUK outdoor urban spaces have an interesting view towards the Lowry located just across the water, as well as towards other buildings with an extraordinary design such as The War Museum.



Figure 16. Design of MediaCityUK/ Well lit park in MediaCityUK (PEEL Group commercial materials)

What is more, MediaCityUK is well lit at night which provide a feeling of security and invite people to have a walk. It need to be emphasised that the lighting is not aggressive and does not create an effect of a glare. Due to the fact that park, piazza and waterfront are well lit at night and all of the mentioned places have the interesting views towards The Lowry, MediaCityUK can be assessed with a good remark within this category (Fig. 16.).

8. Possibilities for hearing/ talking

Score - Average

During one week observations, the noise from two construction sites was present. Furthermore, every morning from 8:00 AM to 10:00 AM the maintenance and repair division is involved in maintenance tasks, which is also the source of noise.

Moreover, next to the waterfront there is a new restaurant under construction which is the source of noise too. However, based on the observations, present noise only slightly affects the area and was not inconvenience during hearing or talking. MediaCityUK's outdoor public space is not equipped with benches with tables, therefore the interaction with other users is more difficult. Moreover, lack of the suitable city furniture is not very conducive to communicating.

9. Possibilities for play/ unfolding/ activities

Score - Poor

Within this category the whole MediaCityUK urban space is undoubtedly assessed with a poor remark as it does not provide any possibilities for playing, unfolding or making any other activities. The only entertainment for children is the bench which plays a role of a facility to play (Fig. 17.). MediaCityUK can be a place for temporary activities such as Yoga Day, however it does not provide constant possibility for activities. The biggest drawback is the lack of a playground or any other small facility which could have been used by children as many families come to MediaCityUK over the weekend.

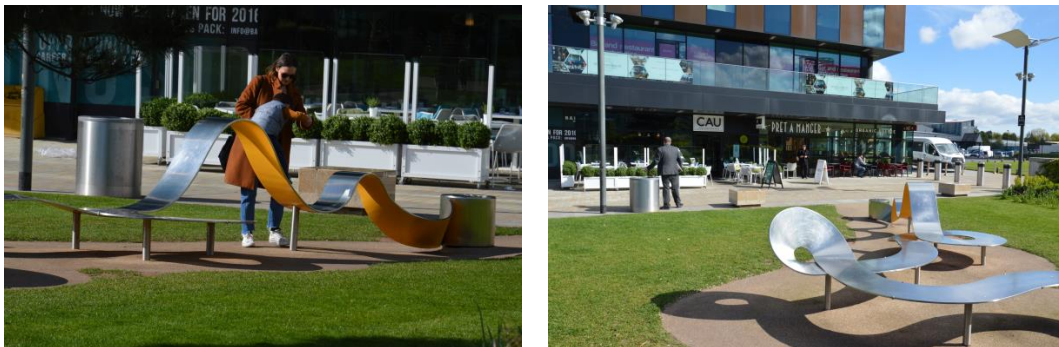


Figure 17. Benches being the only entertainment for children (Credits: Górska, 2017)

10. Scale

Score - Average

The MediaCityUK's outdoor public space is surrounded mainly by 6 floors glass office buildings and 20 floors high residential buildings. According to Gehl (2011) human dimensions should be highly considered in creating a liveable urban space. It is assumed that the average height of human is 1.78m for male and 1.65m for female in Europe (Visscher, 2008) and the height from the eyes of human to the ground is 11~12cm shorter than his height (Committee of Collection of Architectural design data, 1994). Therefore, based on the observations the 4000 sqm piazza cannot be considered as an area designed in accordance to human-scale. When the user is in the piazza, scale creates to big contrast and might affect the user's perception and well-being.



Figure 18. MediaCityUK's scale contrast (PEEL Group commercial materials)

11. Possibilities for enjoying positive aspects of climate

Score - Average

For people who like enjoying the sun, MediaCityUK provide the park with lawn chairs. Moreover, as long as it is sunny, people can also enjoy sitting on the grass. It needs to be emphasized that, greenery in MediaCityUK is well maintained (Fig. 19). However, in terms of rain, MediaCityUK does not provide any shelters where people could hide. MediaCityUK is prepared for good weather conditions while it is not prepared for unexpected ones.



Figure 19. Possibilities for enjoying nice weather (Credits: Górska, 2017)

Due to the fact that people can enjoy sunny weather but they could not have stayed outside while raining, the MediaCityUK is assessed with the average remark.

12. Aesthetic quality/ positive sense experience

Score - Average

MediaCityUK is designed in a conscious way as it uses natural materials such as concrete benches which is an advantage in term of material efficiency. However, when it comes to greenery, only park can be considered as a green space, while both piazza and waterfront do not provide any greenery. Despite the fact, that MediaCityUK has an access to water, waterfront does not provide a positive sense experience as it is full of concrete with no greenery. The same description can apply to piazza. Lack of greenery in the waterfront and piazza make the overall outcome an average.

Final outcome

The results of the evaluation of each of the criteria are presented in the graph below. Five of the criteria can be considered as good (green colour), five of the criteria as average (yellow colour) and two criteria as poor (red colour) (Fig. 20.).

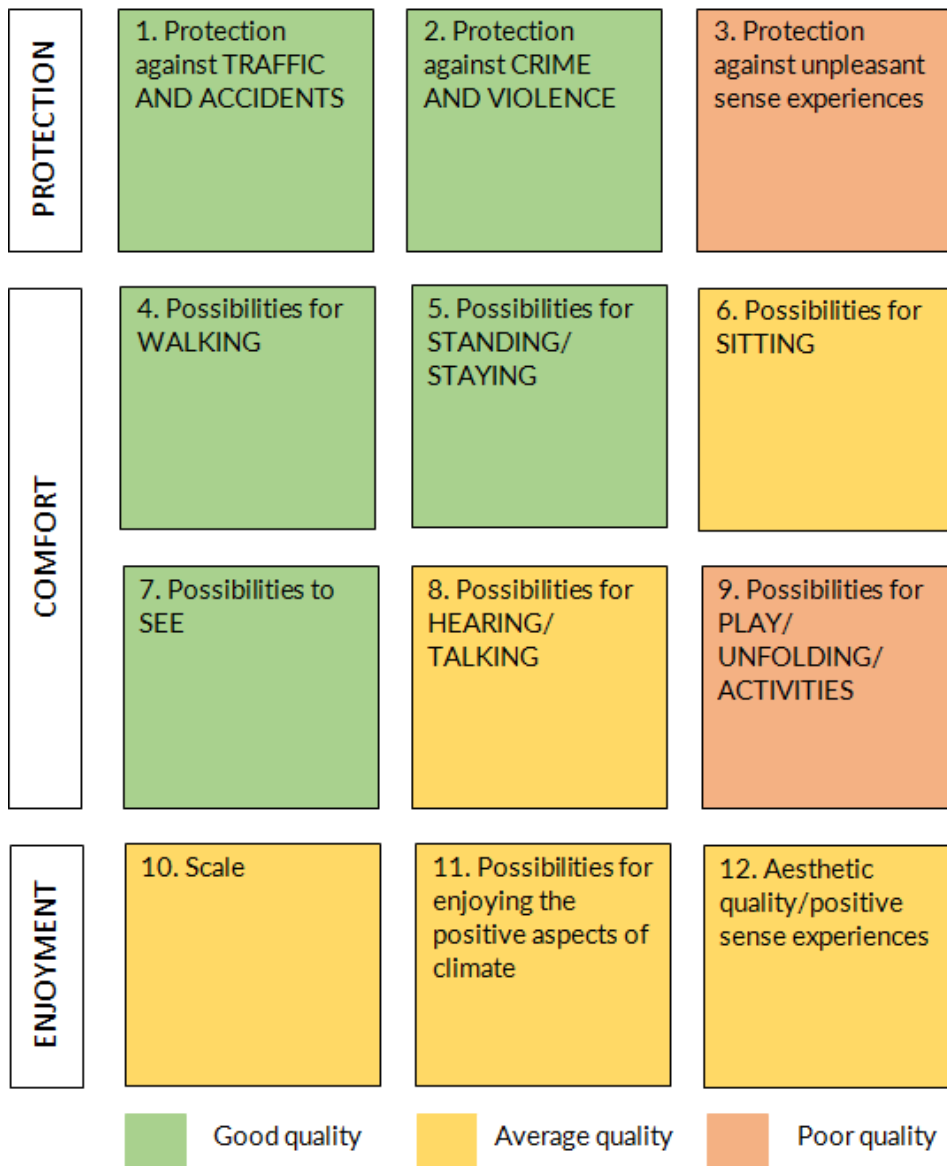


Figure 20. MediaCityUK outdoor public space assessment according to Gehl's 12 quality Criteria (Gehl, 2013)

6.1.3. Conclusion

The observations according to Gehl's 12 quality criteria provide valuable data related to the comfort, protection and enjoyment of the users of this space. Furthermore, based on these findings, list of recommendations has been developed in order to improve the "lived space" (Lefebvre, 1991).

According to Gehl, evaluations of public space must consider all 12 quality criteria in a hierarchical fashion. Therefore, the protection criteria should be addressed before comfort criteria can be considered, and in the same way, comfort criteria must be analyzed before enjoyment criteria can be fully considered. Gehl contends that in the modern era *"people are not out in public spaces because they have to but because they love to"* (PPS, 2005), making the quality of public spaces very important in order to fulfil needs of users. As Gehl says *"if place is not appealing people can go elsewhere"* (PPS, 2005), which is why public spaces compete with each other in providing the most attractive offer.

The analysis of the observation data show that none of the criteria groups meet the requirement of good quality. Therefore, this public space needs improvements in order to achieve a good quality in each category. Recommendations to each category are presented in the table 4.

Table 4. Recommendations for improving MediaCityUK's outdoor public space (Inspired by Gehl's 12 quality criteria)

PROTECTION	1. PROTECTION AGAINST TRAFFIC AND ACCIDENTS: criterion fulfilled
	2. PROTECTION AGAINST CRIME AND VIOLENCE: criterion fulfilled
	3. PROTECTION AGAINST UNPLEASANT SENSE EXPERIENCES: increase areas with protection from wind and rain
COMFORT	4. POSSIBILITIES FOR WALKING: criterion fulfilled
	5. POSSIBILITIES FOR STANDING/STAYING: criterion fulfilled
	6. POSSIBILITIES FOR SITTING: increase the number of seats with back support; equipped the area within the picnic seats

	7. POSSIBILITIES TO SEE: criterion fulfilled
	8. POSSIBILITIES FOR HEARING/TALKING: increase areas with protection from against noise, place seats at strategic locations to create an opportunity to talk
	9. POSSIBILITIES FOR PLAY/UNFOLDING/ACTIVITIES: equipped the area within the children's playground and the outdoor gym facility
ENJOYMENT	10. HUMAN SCALE: general adjustments should respect the human scale
	11. POSSIBILITIES FOR ENJOYING THE POSITIVE ASPECTS OF CLIMATE: place furniture in natural shade and consider the aspect of wind and rain protection
	12. AESTHETIC QUALITY/POSITIVE SENSE EXPERIENCES: increased the number of the greenery at the waterfront

6.2. SOPARC analysis

The purpose of the SOPARC (System for Observing Play and Recreation in Communities) analysis was to examine how MediaCityUK's outdoor public spaces are used. Observations conducted according to the SOPARC protocol provided data showing *'how many'*, *'where'* as well as *'how'* people use a particular space. The SOPARC protocol distinguished 3 different groups of activities: sedentary (e.g. sitting, standing), walking or vigorous (e.g. cycling, jogging, playing). The high percent of vigorous and/or sedentary activity is a good indicator of the quality of the public spaces (Gehl, 2013). However, the high percent of pedestrians walking through the public area does not necessarily indicate a high level of quality. It should be emphasized that a high percent of people choosing to spend time in the MediaCityUK's outdoor public creates a quality of this space. Therefore, the SOPARC's findings could form the strategy for the future MediaCityUK management decisions, such as how to make the area more accessible and pleasant to visit.

6.2.1. Observations scheme

Data were collected for one week, between 24th and 29th of April 2017. The MediaCityUK's outdoor public area was divided into 5 specific observations zones of varying size: *The Stage #1*, *The Green #2*, *The Green #3*, *The Green #4* and *Waterfront #5* (Fig. 4.). Smaller observation areas allowed for more accurate observations and provide an opportunity to distinguish different user's activity within specific zones.

All target areas were assessed during 4 different periods: 9:30 AM, 12:30 PM, 16:30 PM and 20:30 PM. These hours were selected to maximize observation of diverse group of users (children, teenagers, adults and seniors) and therefore, selected hours are related to the daily life cycle. During these selected hours, the observers were expected to observe the highest number of people who visit the area independently as well as with families. In the methodology chapter 3 the method is explained in more detail.

6.2.2. Results

All 5 observation zones were considered as accessible, supervised and suitable for use. However, according to SOPARC protocol terminology any of these areas could be qualified as equipped. Park or a square can be considered as equipped if equipment (e.g., balls, jump ropes) is provided by the park and the equipment is present during the scan. Equipment cannot be owned by park users or be available permanently (McKenzie, 2006, p. 4).

A total of 4118 individuals were observed performing a variety of different activities including walking, vigorous activities such as, jogging/running, playing soccer, climbing and jumping (children playing), as well as, sedentary activities such as, sitting (seated on folding chairs or benches), standing, lying down or reading (Fig. 21.). Overall, 2164 individuals were observed at The Stage (piazza), 518 individuals were observed by the Waterfront and overall, 1506 individuals were observed at The Green (park). In the zone '*The Green #2*' was only recorded 436 users, in the zone '*The Green #3*' was recorded 573 persons and the last zone, '*The Green #4*' was

visited by 497 users. This study found that the piazza was predominantly used more than the park.



Figure 21. Users performing different activity levels (vigorous, sedentary, walking) (Credits: Górska, 2017)

The highest number of users were recorded on Saturday, the 29th of April 2017 (834 persons) and it should be noted as a weekdays peak period. The Saturday was a very warm and sunny day, therefore it could be assumed that the good weather conditions could also affected the high number of visitors. The lowest number of users were recorded on Saturday, the 29th of April 2017 (523 persons). The lower number of visitor were perhaps caused by really windy and cold weather, as well as, that day the Manchester United, the biggest football team in Manchester, played a game against Swansea City at 12:00 PM. For this reason, almost every time when there is a football game at Old Trafford Stadium the city reminds a ghost-city - fans watch a game at the stadium, at homes or bars. During the working days, the highest number of persons were observed on Wednesday, the 26th of April 2017 (829) and the lowest number of users were recorded on Thursday, the 27th of April 2017 (571) (Fig. 22). The observation results are strongly connected with weekly life cycle. People usually work from Monday to Friday and they are off during Saturdays

and Sundays, therefore would be more likely to visit public outdoor spaces only on the weekend. Results of the conducted survey confirm this statistic (6.3).

Furthermore, during each observation day the highest number of users were recorded at lunch time. The result was mostly influenced by employees from the surrounded offices having an outdoor break for a lunch/simple relaxation, students from the University of Salford having a break between lectures and eating lunch, tourist waiting for BBC's tourists tour. The lowest number of users were observed at the evenings. The result was a reason of the fact that the biggest group of the users of MediaCityUK's outdoor public space represents people who work or study there, therefore it might be hard to convince these potential users to stay after long day at work and use the MediaCityUK's area, because most of people do not necessarily would like to spend the rest of a day at their workplace area. It needs to be emphasized that any organized event was not recorded during a period of the one week observations.

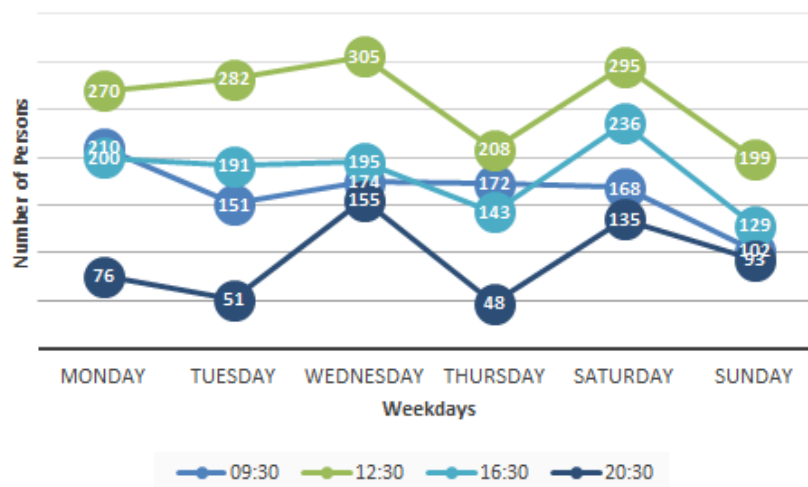


Figure 22. MediaCityUK's outdoor public space weekly usage by time of day

Table 5. provides a summary of the demographic composition and activity level of users of the MediaCityUK's outdoor public space. Overall, the majority (85.3%) of people were recognized to be adults (21-59 yrs). The majority of adults were males (57.3%) and the primary activity was identified as walking (86.1%). The secondary activity was not recognized in this study. The adult age group mainly consists of the offices buildings employees and students at the Salford University, therefore also

result of the activity level is not surprising, because this mostly group was recorded as *walking* - usually individuals were observed walking to or from their workplace/university.

Table 5. Demographics of all participants observed

Variable	n (%)
Gender	
Female	1757 (42.7%)
Male	2361 (57.3%)
Age group	
Child (0-12 yrs)	210 (5.1%)
Teenager (13-20 yrs)	87 (2.1%)
Adult (21-59 yrs)	3512 (85.3%)
Senior (60+ yrs)	309 (7.5%)
Activity level	
Sedentary	251 (6.1%)
Walking	3545 (86.1%)
Vigorous	322 (7.8%)

In order to understand the differences and patterns of the user's activity during working day and weekend day a comparative analysis of two days was conducted. The analysis shows all the recordings from the 25th of April 2017, Tuesday (Fig. 23.) and the 29th of April 2017, Saturday (Fig. 24.).

On the 25th of April 2017, a total of 211 individuals were observed in the park (67% men), 382 in the piazza (64% men) and 71 in the waterfront (54% men). Individuals in parks were more sedentary (76% individuals; 63% men) than in the piazza (16% of individuals; 75% men) or by the waterfront (8% of individuals; 50% men). Overall, more men were observed walking in the piazza (58%) than in the park (33%). More women were vigorously active in the piazza (50%) then in the park (31%) or by the waterfront (19%).

Overall, more adults were observed in all different observation zones than other age groups and the dominance of adult age groups was present in every observation

zone. All age groups were observed only in zones '*The Green #2*' and '*The Green #3*'

On the 25th of April was recorded 104 men more than women at the piazza. In the waterfront was recorded 5 men more than women, while in the park: in the zone '*The Green #2*' was observed 20 men more than women, in the zone '*The Green #3*' was observed 7 men more than women, in the zone '*The Green #4*' was observed 35 men more than women. In all zones, a statistic dominance of men was present. In terms of period of the day, vigorous activity was more frequent in the morning (9:30 AM) and in the afternoon (16:30 PM) for both women and men. The vigorous activity was noticeable during all 4 observation sessions at the target area. The highest level of vigorous activity was recorded at 16:30 PM at the piazza, while in the zone '*The Green #4*' was not recorded any vigorous activity during the whole day. Sedentary activity was on the highest level in the zone '*The Green #2*' (10 individuals) compares to the rest of zones. However, in the zone '*The Green #3*' the sedentary activity was present at every observation session. The pattern in user's activity increase from 9:30 AM to 12:30 PM and the pattern in user's activity decrease from 12:30 PM to 20:30 PM can be observed in each zone.

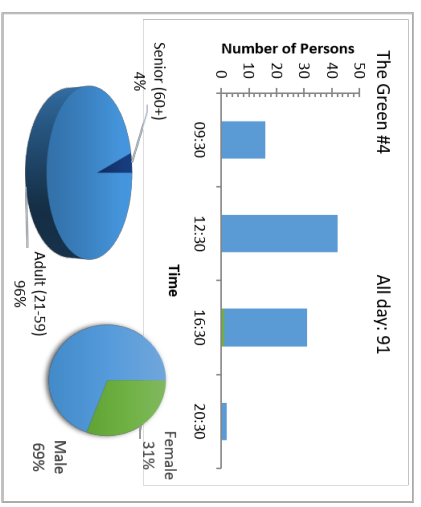
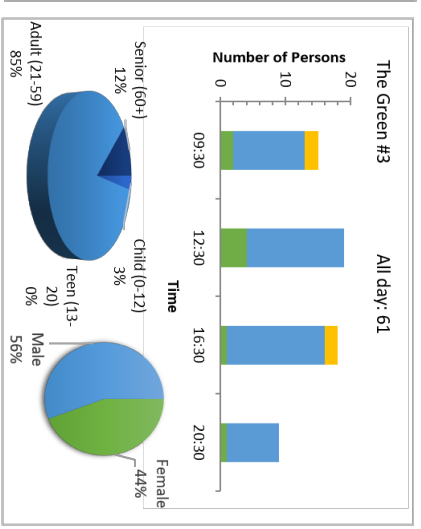
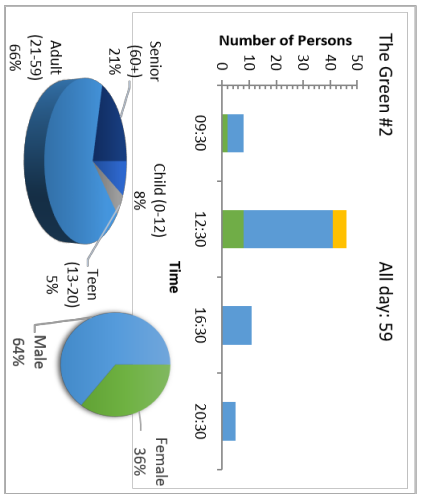
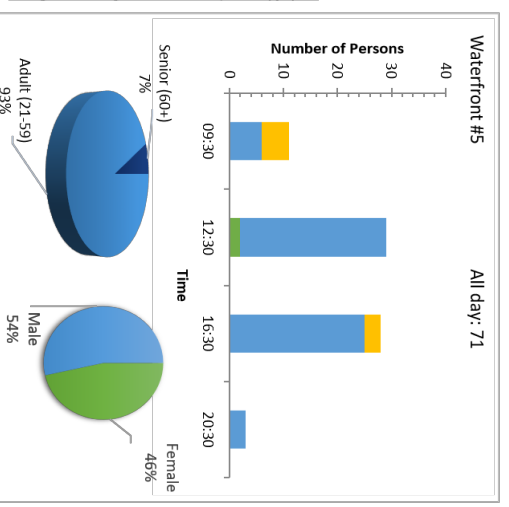
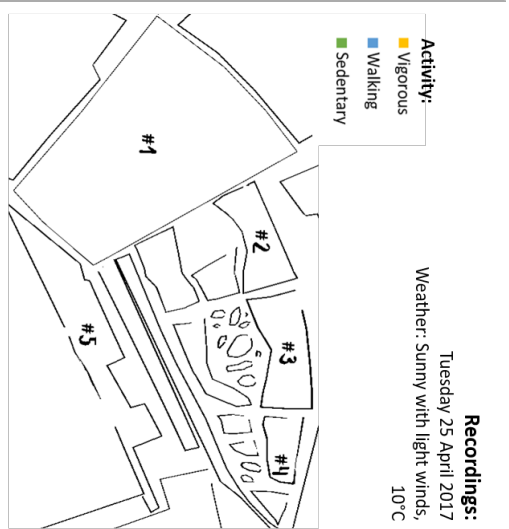
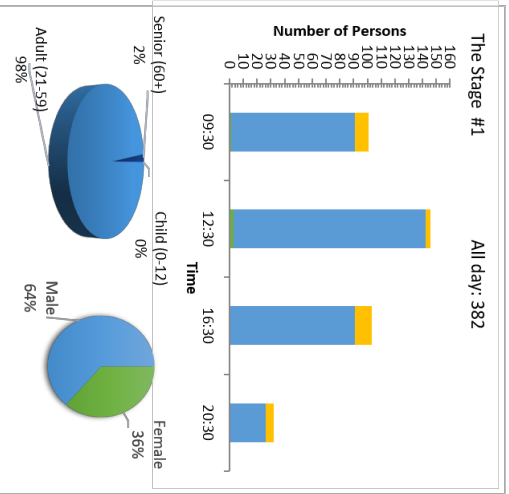


Figure 23. Recordings from the 25th of April 2017

On the 29th of April 2017, a total of 350 individuals were observed in the park (53% men), 366 in the piazza (57% men) and 118 in the waterfront (47% men). Individuals in parks were more sedentary (71% individuals; 52% men) than in the piazza (6% of individuals; 50% men) or by the waterfront (13% of individuals; 55% men). Overall, more men were observed walking in the piazza (53%) than in the park (33%). More women were vigorously active in the park (72%) than in the piazza (23%) or by the waterfront (5%).

Overall, more adults were observed in all different observation zones than other age groups and the dominance of adult age groups was present in every observation zone. During this weekend day, all age groups were observed in the all 5 observation zones. On the 29th of April was recorded 48 men more than women at the piazza. In the waterfront was recorded 6 women more than men, while in the park: in the zone *'The Green #2'* was observed 10 men more than women, in the zone *'The Green #3'* was also observed 10 men more than women, in the zone *'The Green #4'* was observed 2 women more than men. Records shows that during a weekend day a statistic dominance of men is not that high compared to the working day. In terms of period of the day, vigorous activity was more frequent at the lunch time (12:30 PM) and in the afternoon (16:30 PM) for both women and men. The vigorous activity was noticeable during all 4 observation sessions at the target area. The highest level of vigorous activity was recorded at 12:30 PM in the zone *'The Green #3'* (16 individuals), while by the Waterfront was not recorded any vigorous activity during the lunch time. Sedentary activity was on the highest level in the zone *'The Green #3'* (27 individuals) compares to the rest of zones. In zones *'The Green #2'* and *'The Green #3'* the sedentary activity was present at every observation session. The pattern in user's activity increase from 9:30 AM to 12:30 PM and the pattern in user's activity decrease from 12:30 PM to 20:30 PM can be observed in the 4 of 5 zones. *'The Stage #1'* represents slightly different pattern, user's activity increase can be observed from 9:30 AM to 16:30 PM and then from 16:30 PM to 20:30 PM user's activity decrease can be observed.

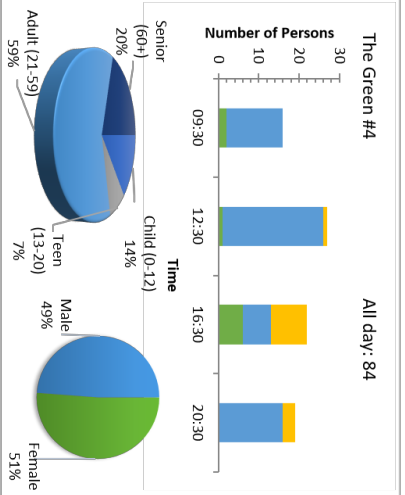
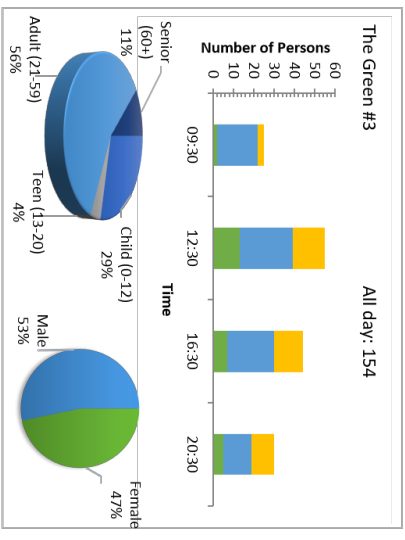
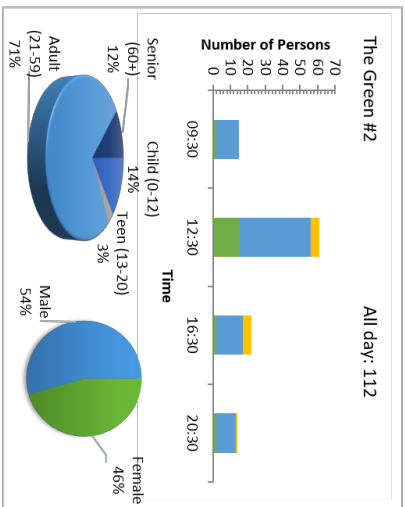
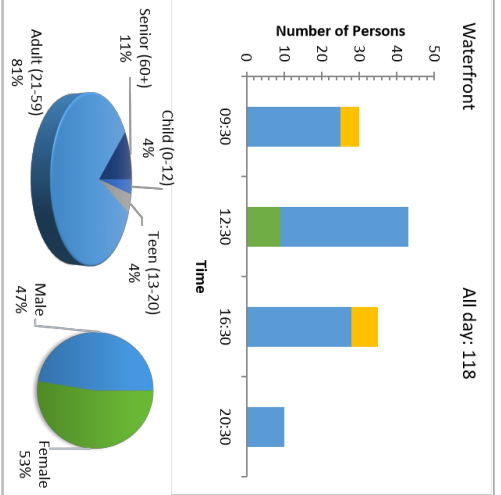
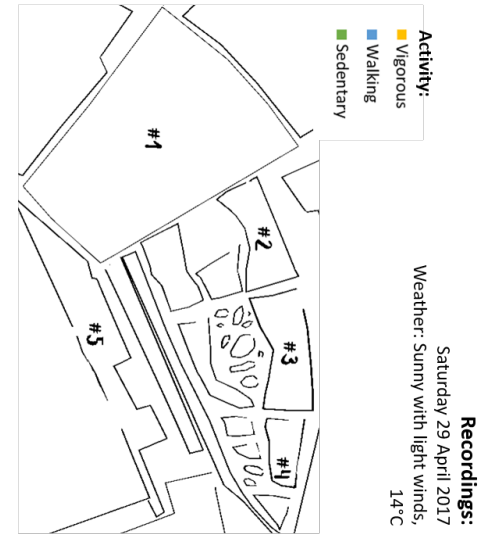
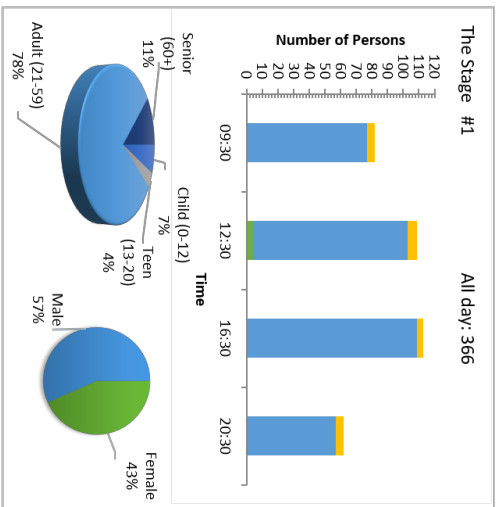


Figure 24. Recordings from the 29th of April 2017

In parks, more adults were observed during weekend day (215 individuals) as compared with working day (186 individuals). Many more children were observed on the Saturday than on the Thursday. During the weekend day 112 children was recorded in total and 73 out of 112 children were observed in the park zone. During the working day only 7 children was recorded in the park. Differences in age groups disposition were significant between working day and weekend day. Seniors were observed more often during weekend day - 102 individuals were recorded, as compared with working day - only 38 users were recorded.

Among park users, observers recorded more children at 12:30 PM both during weekend day and working day. However, more adults were observed at 9:30 AM on the working day, while during the weekend day more adults were observed at 12:30 PM. Furthermore, many more teenagers were observed at 16:30 PM and 20:30 PM during the weekend day, while during a working day teenagers were noticeable mainly at 12:30 PM. Seniors were more frequently observed at 12:30 PM during working day as also weekend day. Among park users, more people were vigorously active during weekend day - 99 individuals were observed (women = 43%, men = 57%) as compared with working day - 49 individuals were observed (women = 33%, men = 67%). During the working day women were more sedentary and also walked more at 12:30 PM, and were more vigorously active in the morning period (9:30 AM). A similar sedentary pattern was observed among men, however men walked more and were more vigorously active at 16:30 PM. During the weekend day women were more sedentary and also walked more at 12:30 PM, and were more vigorously active in the morning period (16:30 AM). An exact similar activity pattern was observed among men. During the working day and weekend day the sedentary frequency was the same at the piazza. However, users of the piazza walked more during the working day - 346 individuals were recorded, while during the weekend day - 342 individuals were observed.

6.2.3. Conclusion

One week of observations of activities in MediaCityUK's outdoor public space provides valuable data regarding how the space is used. The aim of these SOPARC-observations was to identify the differences between a work day and a weekend day use of the MediaCityUK's public space. Furthermore, the findings also indicate which part of this public space is in need of intervention and improvements.

This analysis shows that this public space is mainly used by male adults for the walking purposes. Children, teenagers and seniors were minority amongst the observed users. Sedentary and vigorous activities were to a large extent not performed at a very high level; none of these activities involved more than 8% of the total number of users. According to Gehl (2013), this kind of result demonstrates that such a public space does not represent the high level of quality.

Observation of users on the 25th of April 2017 also showed the dominance of men as the main users of MediaCityUK's outdoor public space (Fig. 23.). According to PPS (2016), a public space should be characterized by a good balance between the number of male and female users. On this single work day, adults were the dominant age group of users. The highest level of activity was recorded in '*The Green #3*' and '*The Green #2*', what is more the highest level of activity was observed during the lunchtime and at the afternoon. '*The Green #4*' was not actively used by visitors. Only few children were observed in the area, and what more, were only active in the park on this particular workday. This finding does not comply with a PPS's principle that the place should be actively used by people of different ages.

Observations from the 29th of April 2017 (Fig. 24.) showed more balanced proportion between the number of men and women on this particular weekend day. This aspect is particularly important in order to create a high-quality and diverse public space (PPS, 2016). All types of activities were observed in the park, with the highest level of activities being recorded during lunchtime and the afternoon. All age groups were observed during this particular weekend day, which is also a positive indicator according to the PPS's principles (2016). Although adults were still the

dominant users, the number of children and seniors was higher than on the regular work day. Furthermore, observations of these two days showed that during a weekend day people spent their time in a group, e.g. with their family or friends, whereas during a work day people spent their time alone. According to PPS (2016) a public space functions better when is used by both singles and people in groups because it gives an opportunity to create a stronger community and which have a chance to know each other. Observations of a weekend day showed that the users considered MediaCityUK a place to sit with friends, have fun and socialize with others. However, it has been noted that residents do not have many other places to go in the vicinity.

In line with the results from Gehl's scheme of observations, the SOPARC observations confirm that all observed zones need improvements in order to intensify user activity. The SOPARC-observations support the need for the proposed recommendations, presented in subchapter 6.1. According to PPS (2016), it is important to provide visitors with opportunities to participate in as many activities as possible. Currently, the area needs to provide opportunities for children, e.g. by introducing playground, and the amenities/facilities need to be improved in order to provide more activities, e.g. sitting/picnicking can be achieved by implementing improved seating arrangements and picnic tables. Furthermore, proposing more activities for seniors, children and teenagers could diversify the age groups of users. Based on the summarized weekly results and the analysis of results from the single work day and weekend day, it can be assumed that currently the public space cannot be recognized as a fully successful place. As activists from the Project of Public Spaces claim, *'the ultimate determinant of a place's success is how well it is managed'* (PPS, 2016), and it appears that management has some relatively easy improvements to make.

6.4. Surveys

The key objective of conducting the surveys was to evaluate whether the users are satisfied with the outdoor urban space in MediaCityUK and to determine quality of a space. The aim was to talk to at least 100 users and the goal was achieved. The

surveys were conducted from Monday (the 24th of April) until Saturday (the 29th of April). The amount of 10 surveys were conducted every day between the morning and the afternoon on Monday through Friday, 25 surveys on Saturday and 25 surveys on Sunday. The purpose of conducting more surveys over the weekend was established to have a chance meeting and talking to people who do not use MediaCityUK outdoor space on a daily basis and get results from different kind of potential groups. It was assumed that from Monday until Friday, most of the users of the outdoor space will be employees from BBC building's offices, employees from services located there and students from Salford University. In the study, surveys were conducted with users who were available at study area - the outdoor urban space of MediaCityUK. It was planned to have almost the same number of respondents in each age category, however, it was not entirely achieved because the vast majority of people using the space was between 21-30 years old (48 of respondents). The reason behind that is the fact that University of Salford is located in MediaCityUK which brings a lot of young people to the site. Moreover, MediaCity is where BBC has its base and where a lot of young professionals were relocated from London to work there (Hollingshead, 2012). As it was mentioned in the article written by Hollingshead "*Media is seen by people here as being for the yuppies, not for them*" (Hollingshead, 2012, p. 2). In the Oxford living dictionary of neologisms, yuppie is described as "*a fashionable young middle-class person with a well-paid job*". This can have its explanation of relatively big group of respondents between 21-30 years old. Coming back to the survey, the second ageing group which was the largest in terms of respondents was the group of 31-40 years (20 respondents), and then accordingly the group under 20 years old (10 respondents), the group of 41-50 (9 respondents), the group of 51-60 (9 respondents) and the group over 60 years old (only 4 respondents). Even though the majority of users were between 21-30 years old, the aim was to find people from each age category in order to get the opinion from young people, middle aged and elderly persons too. It need to be said that the people over the age of 60 were not that often noticed in the urban space of MediaCityUK, therefore the number of surveys conducted with them is very lean as it was only 4 respondents from this group. Nevertheless, the aim to talk to each age group category was achieved.

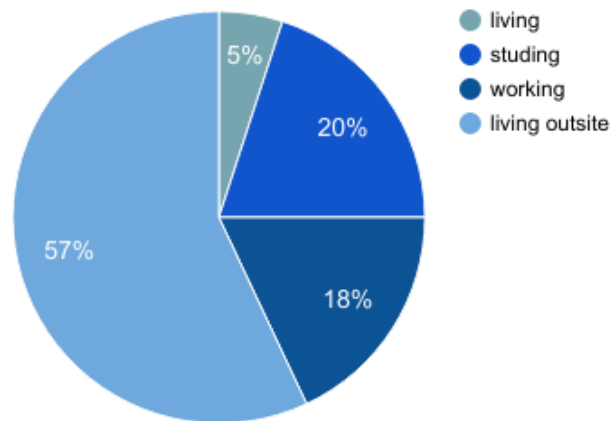
The survey included of 29 questions and the following paragraphs will present the results of the most relevant aspects. The questions were related to different criteria such as technical, functional, aesthetic and questions which aimed to get to know the personal relation to the study area by asking about preferences, frequency and length of use. All the survey's questions were closed, however, there was always an option called 'other comments' where respondents had a possibility to written their own answer which was not listed in the proposals. Moreover, most of the question were using 5 point Likert attitude scale where respondents were asked to express their agreement to some of the concepts. The grades included of 'strongly agree', 'agree', 'neither agree or disagree', 'disagree', 'strongly disagree'.

6.4.1. Results

Visit-related characteristics

The respondents were asked about their relation to MediaCityUK as the users of the urban outdoor space can live, study, work in MediaCityUK or they can be simply visitors from other places of the city. As the graph 1 depicts, the majority of people were living outside of the MediaCityUK. This result was relevant for the study as it was interesting to see whether people from other neighbourhoods do use the space and visit MediaCityUK.

Graph 1. Respondent's relation to the MediaCityUK

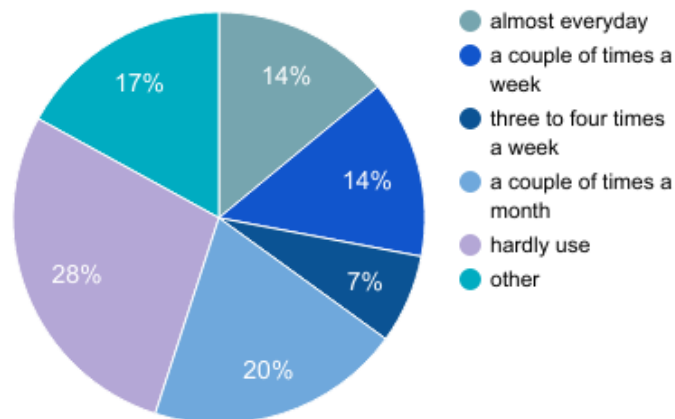


The purpose of this question was to see with which of the answer the respondents associate themselves mostly. It is very likely that those who chose 'studying' are probably living outside of the MediaCityUK too, taking into account that there is only two residential building with high rent which students cannot afford. It would also make sense if people could choose more than one option however, it was interesting to see what kind of feature is the dominant one. Based on the graph 1., 57 % of respondents do not have closer relation with MediaCityUK. It need to be said that the survey's questionnaire was prepared before the field trip to Manchester and visiting Manchester before the survey's preparation could have been an inspiration and add other questions or to expand the possibilities when it comes to the answers. One of the missing thing in the questionnaire is the question whether people visiting MediaCityUK are tourists. Based on the interview with Derek Elliot (PEEL Group), MediaCityUK is listed at Trip Advisor website (website providing review of travel-related content) such as one of top tourist attractions in Manchester. Moreover, in 2016, MediaCityUK was awarded by the TripAdvisor website and got certificate of excellence (TripAdvisor website).

Success of a space may be indicated by the frequency and length of use of a space therefore those indicators were also measured. In order to get to know how

frequently people use the outdoor urban space in MediaCityUK this kind of question was included in the questionnaire and the results can be seen in the graph 2.

Graph 2. Frequency of spending time in MediaCityUK outdoor space



Users of MediaCityUK mainly use the space quite hardly (28 of the respondents) however it need to be emphasised that it is due to the fact that some of the visitors were living outside of Manchester and were coming to the city very rarely and for the special purpose such as football games. Another reason for such an answer is the fact that MediaCityUK became the destination for tourist, therefore the answer of 'hardly use' is rather interpretable. Tourists were not excluded from the survey and they counted around 10% of the respondents as it was also interesting to hear the opinion of people who use the space for the first time and get to know their first impression of the space. Moreover, it need to be mentioned that during the weekend (on Saturday and on Sunday) at Lowry which is located just on the other side of the canal, food market event took place, and that was the reason why some of the people came to MediaCityUK at the first time. Despite the fact that the answer 'hardly use' was the most common one, when counting all the other answers together such as 'almost every day', 'a couple of times per week', 'three to four times a week', 'a couple of time a month' it will all together account for 55 responds which expressed using the space with a more or less frequency.

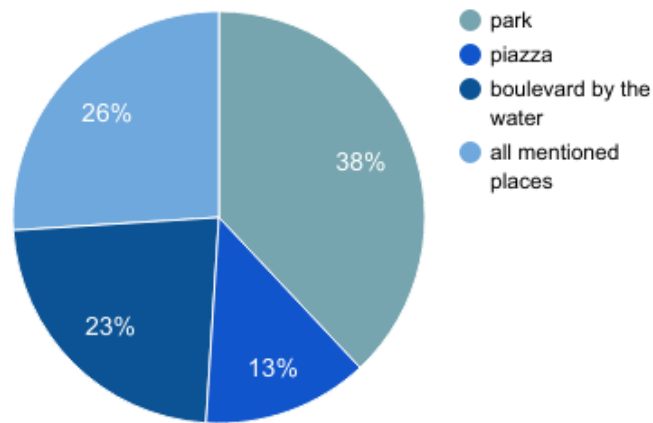
Another visit-related characteristic the length of time spent by the users in the outdoor space. When asked how much time do users usually spend in MediaCityUK most of the respondents (41%) spend more than one hour in MediaCityUK, the rest such as 27% use around one hour in MediaCityUK, another 27% use less than one hour, while 8% are the cases where they used space more than several hours due to the fact that they work in MediaCityUK (outdoor cocktail bar) or they were a member of sketching group and they have been drawing landscapes for many hours.

All the respondents were also asked whether they use urban space in MediaCityUK during the working days or during the weekends. The answers were quite equal as questionnaire was conducted both from Monday until Thursday and on Saturday and Sunday so they survey targeted both people who are using area only during the working days as they work there or study there (30% of the responds), and people who come to MediaCityUK occasionally during the weekends (29% of the responds). The rest of the respondents use outdoor urban space from Monday until Sunday.

Determination of performance value of urban outdoor space

Performance value of a space was determined by taking into account respondent's answers to the question about the most used space in MediaCityUK as the outdoor space of MediaCityUK can be treated as one urban space but can be also divided into three areas as they provide different functions and are located in a way that are easy to be divided. The first distinguished area is the park, another space is piazza which is separated from the park by very high streetlights and the screen where all the time BBC news can be watched (without sound, only subtitles available). The third space is the boulevard by the water which is separated from both the park and the piazza by the tram stop. Based on the graph 3, the part of the MediaCityUK outdoor space which is the least popular area is piazza, as it is a very big square mostly used when the organised events are taking place such as concerts or food markets. On a regular basis, the piazza is used as a walking path from tram stop to BBC offices and other services such as coffee shops.

Graph 3. The popularity of different parts of MediaCityUK outdoor space



Park is the most popular in terms of spending time in the outdoor space. It is very explainable due to the fact that the park creates a friendly climate where people can sit on a bench and relax while enjoying greenery. As it was mentioned by Frank Mills, the park contains a lot of different species and lively habitat which is the outcome of the BREEAM certification and can be the reason that people choose to spend time there. It can be said that according to the results, it is clear that the highest value among three distinguished places from graph 3, was obtained for the park, whereas the lowest was obtained for the Piazza as it is mostly used as a passing area (Fig. 25.)

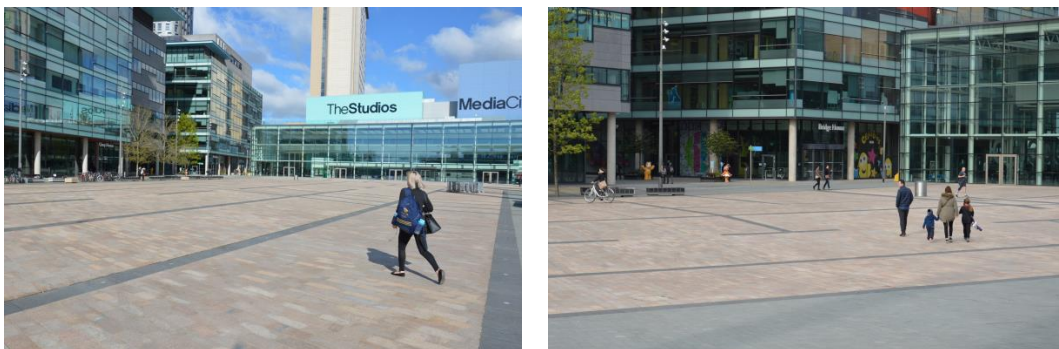


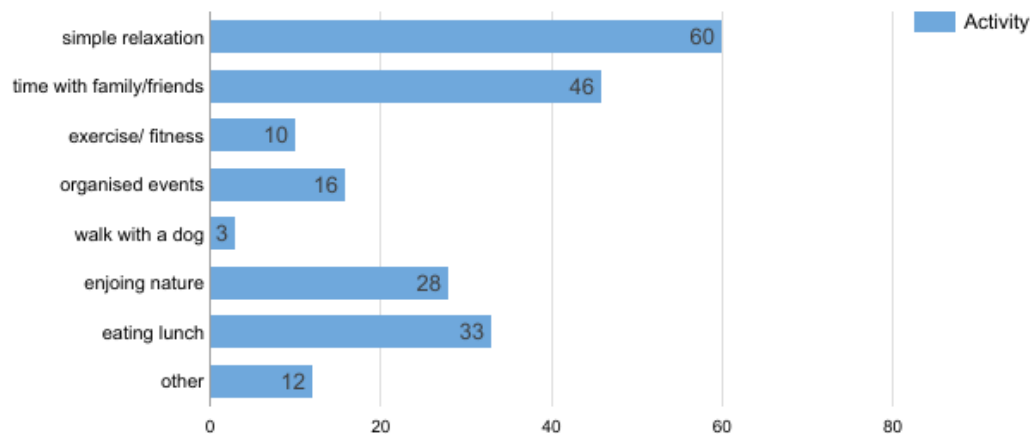
Figure 25. Piazza used as a passing area (Credits: Górska, 2017)

In relation to Piazza, as it was the least popular area, it was interesting to ask how frequently people attend the organised events which are taking place in Piazza. Based on the answers, half of the respondents have never been to any organised events, while only 3% people answered 'very frequently' and 1% answered 'frequently'. Based on the interview with the Salford City representative, the city does not take an active part in organising public events in MediaCityUK and it is rather PEEL Group (the developer) who is taking care of that. Tim Hartley described the cooperation with PEEL group as 'a difficult one' which is the reason why Salford City does not want to poach on PEEL's territory. What is more, the city planner mentioned that one of the requirements from the Salford City towards the development was an obligation to provide the neighbourhood with the outdoor urban space, however nowadays Salford City does not benefit from that agreement. When asked why the Salford City does not take an active role in organising events, Tim Hartley did answer that the space is owned by PEEL and actually they as a City Council, need to take care about more serious things such as taking care for children, fixing the roads and providing social housing. However, it was not strictly clear whether the City does not contribute to creating events for the community. PEEL's representative, Derek Elliot, also was asked about organisation of the events in MediaCityUK. He claimed that everybody is welcomed to create any type of event there, however the event's calendar which is available on the MediaCityUK's website is rather not overbooked. Looking at the online calendar with events in MediaCityUK, there is no much happening there and the same apply to the Facebook website of the MediaCityUK as there is no events under the MediaCityUK page.

In order to further determining the performance value of a space, another question had an aim to get to know the main purpose of using the MediaCityUK outdoor space. In this question respondents could choose more than one answer. The most popular purpose why people were using the urban space was simple relaxation. The second most popular activity was spending time with friends and family and eating lunch as the third most famous activity. It need to be notice that the questions for survey were prepared before the field trip which means before seeing the place in real life. If the study area could have been visited before the question were prepared, it would for sure be an inspiration for other activities which could be proposed among different answers. For example, during the site visit, it was noticed that a lot of

people use MediaCityUK as a passing area, place for have a cigarette break (considering employees working in MediaCityUK and students from Salford University) or as a spot for jogging or for cycling around (activities which were being considered as a vigorous activity during the site observations).

Graph 4. Main purpose of using MediaCityUK outdoor space

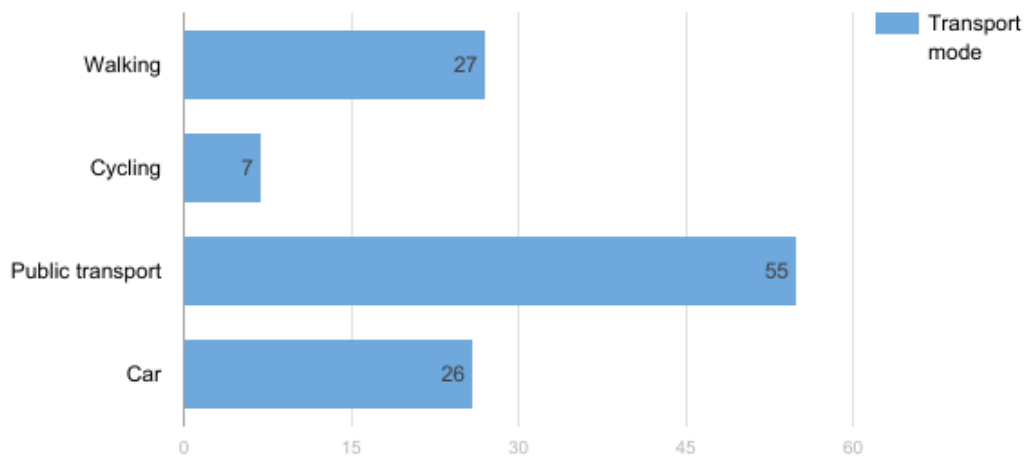


As the 4th graphs depict, MediaCityUK it is not a friendly area for dog owners as it is only a Park when there is a grassy spot, while the rest is rather surrendered by the concrete. 12 % of the people wrote their own answer to the question and it was mostly 'having a drink in the bar' or 'sketching' or 'drawing'. It can be mentioned that MediaCityUK provides an interesting view towards the canal, The Lowry (theatre and gallery complex), the War Museum and some modern buildings, therefore this place seems to be occupied from time to time by the Manchester's sketching group.

Another aspect which is important to measure while considering urban space, it is its connectivity with other parts of the city. Luckily, MediaCityUK can be proud when it comes to the public transport as for the purpose of the investment, the dedicated tram stop in MediaCityUK was established. As it was mentioned in the interview with the Salford City representative, it was one of the condition which BBC have laid as they wanted the easy access for their employees. Due to the fact that the dedicated tram stop was built, visitors from other parts of the city have the

convenient access to the place as for example from MediaCityUK there is a direct connection to the main tram stop in the city centre such as Manchester Piccadilly stop.

Graph 5. The way of transport mode used to get to MediaCityUK



As graph 5 depicts, only 26 out of 100 respondents use car to come to MediaCityUK which has the positive aspect when it comes to green developments, pollution and traffic on the road. The dedicated tram stop can be definitely seen as a merit of the whole MediaCityUK development (Fig. 26.). Based on the literature and interviews, MediaCityUK was considered as a cooperation between PEEL (investor), Salford City Council. However, based on the interview with Salford City and the investor's representative seems like providing the tram connection to MediaCityUK was the main contribution from the city of Salford considering the whole development. As the land where MediaCityUK is located was entirely owned by the investor, Salford City did not contribute much when it comes to setting any requirements for the development.



Figure 26. Dedicated tram stops 'MediaCityUK' (Credits: Górska, 2017)

Coming back to the 5th graph, there is a surprisingly low number of people who use bicycle to come to MediaCityUK. As it was noticed during the site observation, there is no sufficient number of bicycle racks as in front of the BBC offices there were too many bicycles attached to one rack which made all of the them being squeezed. Moreover, some of the cycles were also attached to the fences and barriers (see the pictures below).

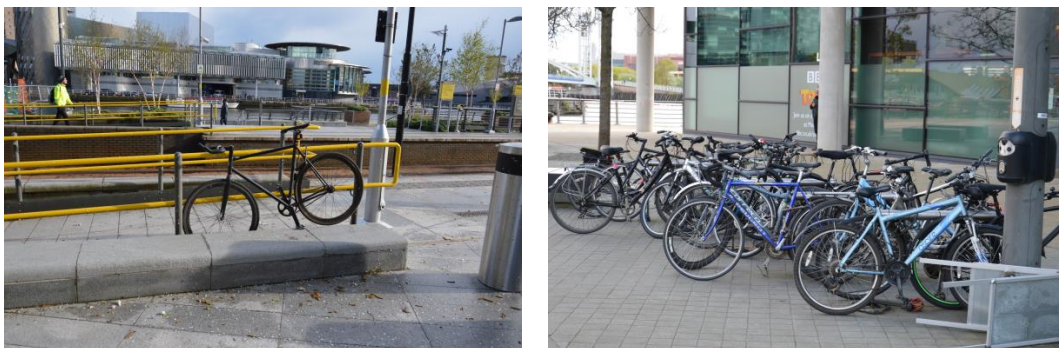


Figure 27. Insufficient number of bicycle rack in MediaCityUK (Credits: Górska, 2017)

Determination of user satisfaction level in urban open spaces

In order to determine whether people are satisfied with the outdoor urban space in MediaCityUK, series of questions were asked which were touching upon issues regarding different categories such as amenities, greenery and concurrent emotions.

When respondents were asked about whether there is sufficient number of amenities (place to sit, lights, shaded elements, litter boxes) most of the respondents did have a positive impression, as 18% of respondents were 'strongly satisfied' and 56% 'satisfied' in terms of the urban equipment. Only 4 % of users did express their dissatisfaction which was made by the fact that there are only few litter bins in the MediaCityUK which is a pertinent remark as only three litter bins were located in Piazza and three litters bin in the park.

Respondents were also asked whether the amenities in MediaCityUK are comfortable and practical. The satisfaction was expressed by the majority, as 60 % agreed with that, 21% agreed strongly, while only 1% was dissatisfied because of the lack of benches with backrest. Even though, only one person raised this issue, this remark is very accurate as those kind of benches does not provide the fully feeling of relaxation and make them unfriendly in particular when it comes to elderly people.

What is more, people were asked whether the amenities are well maintained, and there was no discrepancy here. The vast majority, as 61% of respondents were agreed with that, and 31% agreed strongly. There was only one person who claimed that the amenities are dirty. However, based on the site observations, it can be said that MediaCityUK is a very well-maintained place people who are responsible for cleaning the place were noticed every day during the 7-days field observations.

People perceive green spaces as a positive aspect when talking about satisfaction of outdoor areas as greenery provide the feeling of relaxation and calmness. Therefore, it was essential to ask respondents if there is enough greenery in MediaCityUK. Despite the fact that during the site observations the green space was divided into three different plots, for the purpose of the survey the green park was this time considered as a one space in order to get the overall opinion about the whole park. In order to determine user's satisfaction about the greenery, the people were asked whether it is enough of it and whether the park is well maintained. The majority of users did answer 'strongly agree' - 20% or 'agree' - 47% when they were asked whether it is the right number of green fields. 10% of the respondents expressed their dissatisfaction which was mainly caused by the lack of greenery in the waterfront as it is all concrete and provide a feeling of coldness (Fig. 28.).



Figure 28. Waterfront (Credits: Górska, 2017)

According to respondents the combination of green and blue infrastructure in the waterfront could create better perception of the space overall and would contribute to the fact that people would be using the waterfront more actively as currently it is the place for passing through or jogging. During the 7-days site observations not so many people were noticed there.

What is more, people were also asked to express their opinion about the condition of the greenery and whether is well maintained (Fig. 29.). The answers were very much obvious as 51 % of the respondents agreed on that, the other 40% of the people did strongly agree, and only 9% of respondents did not have opinion on that. Outcomes from that question did not provide any negative responds. The very good results in terms of maintaining the greenery can have its justification taking into account BREEAM requirements as it is stated in the paper written by Callway *“The ‘Ecology Strategy’ (LE 01) is the only issue with a requirement to monitor outcomes”*. As such *“BREEAM Communities does not follow-up on whether its aims are actually met”* (Callway 2016, p. 7). Based on this example, it can be assumed that the following-up of a certain BREEAM category brings the positive impact when it comes to the outcomes. It can be said, that if the other criteria would be evaluated in the similar way, for example checking at the post-occupancy stage whether the number of bicycle racks is sufficient, the user’s satisfaction would be much better regarding that issue. However, it is interesting feature when it comes to BREEAM Certification that only the one issue is evaluating at the post-construction phase while the other

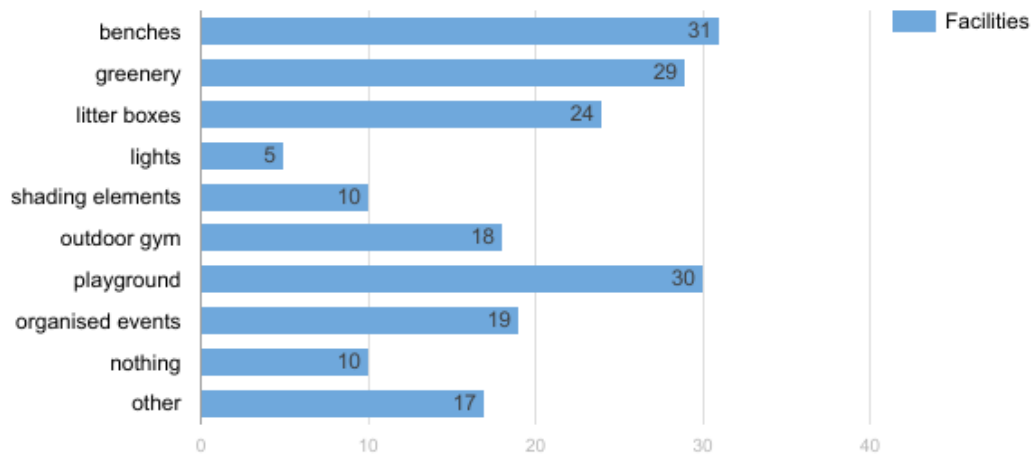
characteristics are neglected after the design phase is finished. Above mentioned example, shows the benefits of conducting the follow-up.



Figure 29. Well maintained greenery in MediaCityUK (Credits: Górska, 2017)

Knowing the opinion about certain features of the urban outdoor space in MediaCityUK, finally people were asked what kind of amenities or activities are missing in that space. The graph number 6 depicts people's needs and desires in terms of what to add to the urban space of MediaCityUK as it was very interesting to see what is missing in the area from the users' perspective.

Graph 6. Missing facilities/ activities in MediaCityUK outdoor space



More than one answer could be chosen by the respondents in order to indicate

missing features as well as their own suggestions and ideas could be written down. Based on the 6th graph, most of the people (31%) claimed that there is no enough benches in MediaCityUK. This comment definitely can apply to the park as it was only few benches there. The second most desired facility is a playground for children. It is a very justifiable remark as children in MediaCityUK use on of the bench (which has an exceptional and fancy design) to play with (Fig. 30.). Taking into account that the MediaCityUK is going to expand and the second Phase of the project is already under constructions, lacking a playground for children could be considered while designing an outdoor urban space for the purpose of the 2nd phase of the project. Moreover, this example shows how the intentions of the urban designer are often misunderstood and how people use the facilities in a real-life condition. This outcome can again emphasize the need of post occupancy evaluation after the project is completed in order to see how they space is used and if it used in a way that is was intended to.



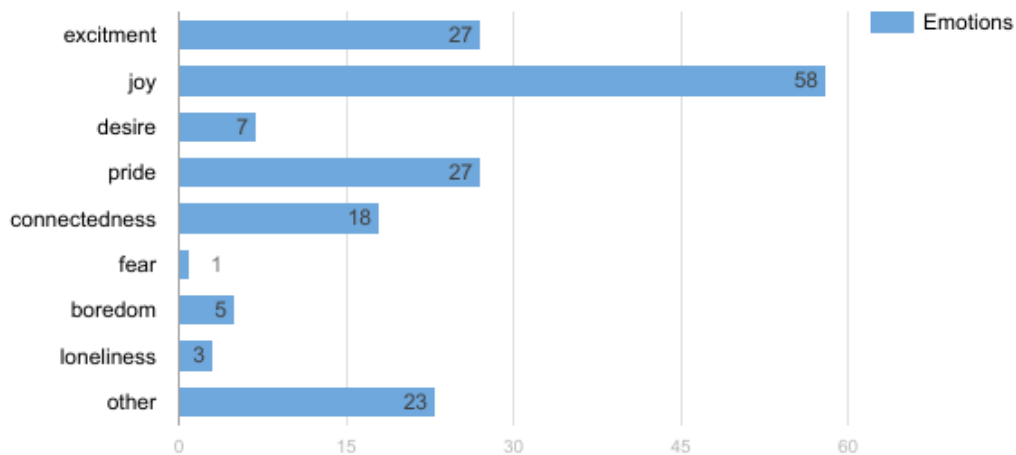
Figure 30. Bench used as a playground for children (Credits: Górska, 2017)

Coming back to the 6th graph, the lack of greenery stands on the third place and as mentioned before it is mostly related to the waterfront as there is almost no greenery in that part of the urban space.

Some of the respondents (17%) managed to suggest their own ideas how the MediaCityUK can be improved such as: places to sit more independently - away from the shops are bars as a lot of benches are located to on-site services. Few people were missing a public toilet which could be easily resolved as there is small toilet provided for the tram's driver as the tram usually has a longer stop at MediaCityUK station. During the site observation, the tram's driver was noticed while opening the small outhouse via private key. Taking into account that there is already a toilet provided, it would be relevant to make it open for public usage too. Another missing facility is a secure bike locking area, however this problem was also mentioned earlier while talking about a small percentage of people coming by bike to MediaCityUK. Having a secure locking spot or at least more bicycle racks would definitely contribute to the better outcomes regarding bicycle's infrastructure. Respondents do also miss a supermarket with relevant prices as there is only BOOTH'S supermarket which as Frank Mills said, it is one of the most expensive supermarket in UK with high quality products. Taking into account that MediaCityUK is a place where the university is located, having a supermarket with average prices would be relevant. The least and the most addressed problem was concerning the lack of a shelter from the wind. During the site visit, it was confirmed that MediaCityUK is a very wind place with wind corridors therefore wind shelters could find its usage as they are in a high demand based on the conducted survey.

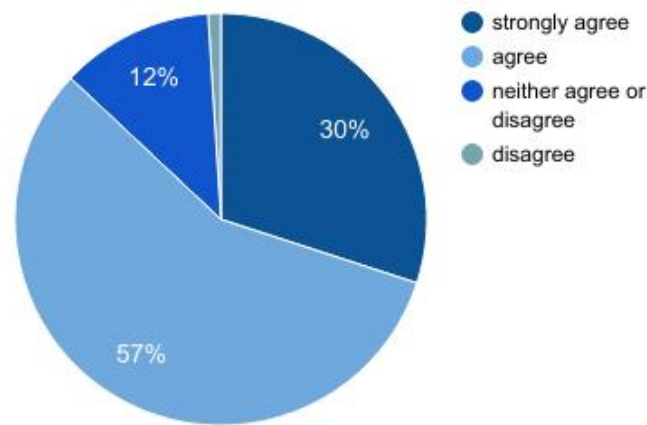
Further determination of user's satisfaction has led asking the question about emotions which do people experience while spending time in MediaCityUK outdoor space. The outcomes show the positive results. The vast majority of respondents feel joy (58%). The second most experienced emotion is excitement and pride scoring the same amount of percentage (27%). Only 5% of users feel boredom, however it is hard to avoid such an answer as people have different needs and desires. Under the answer 'other' most of the time people answered that being in MediaCityUK is just a pleasant experience while the rest do not have any special feelings in connection to MediaCityUK and they just feel normal as in any other places in Manchester.

Graph 7. Emotions experienced in relation to MediaCityUK outdoor space?



The most relevant question which is summing up the overall impression about the MediaCityUK outdoor space was very straightforward and was asking whether people are satisfied with MediaCityUK as an outdoor urban space. In order to answer that question, the respondents were using the 5 point Likert attitude scale. As graph 8 depicts, most of the respondents did answer 'agree' which means that in overall, they are satisfied with the outdoor space (57%), people who are very satisfied count 30% of respondents. Only one person is dissatisfied with the outdoor space (1%) which is a very optimistic value in the overall assessment. Moreover, there is always a group of people who are either satisfied or dissatisfied and they counted 12% of all the respondents. This hesitation may be the result of not using MediaCityUK very actively, therefore they did not want to express their opinion as they do not feel themselves as a right people to judge.

Graph 8. The level of satisfaction in terms MediaCityUK as an outdoor urban space



Through the whole survey, the goal was to get to know the opinion about different compositions which all together create the MediaCityUK. However, even though that some of the aspects could be assessed negatively there is always a chance that the overall opinion can turned out to be positive and that applies to MediaCityUK case. Despite the fact, that there are some missing features in MediaCityUK, the respondents decided to anyway assess the outdoor urban space in a positive light. User's perception of MediaCityUK is very similar to the one that Tim Hartley - Planning Officer at Urban Vision Department as he said "*MediaCityUK project can be criticized on many different levels such as transport, design, lack of amenities and it will be legitimate criticism, (...) you can look at the criticism and benefits and in overall I can say that it is a successful investment*". Tim Hartley was very honest with the assessment of MediaCityUK as he pointed many negative aspects such as lacking of social houses, lack of playground facilities, or not European design, however despite all those facts he still can describes MediaCityUK as a successful place as he did remember how this site looked before the development started as it was very abandoned area with post-industrial character.

Even though, people seem to be satisfied in the overall evaluation of the MediaCityUK outdoor space, they still might be some small faults that make the level

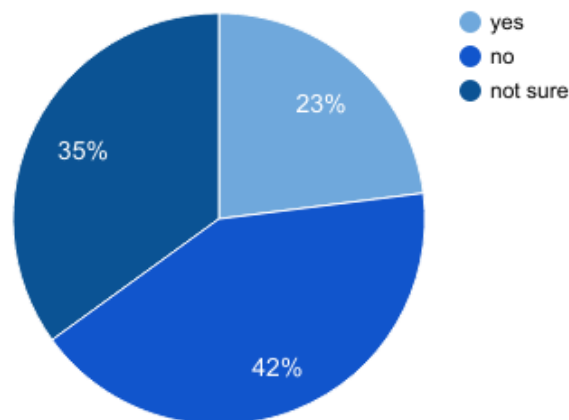
of satisfaction little bit weaker. In order to make sure whether everything in MediaCityUK outdoor space work well, the question if there is something which make respondents feeling dissatisfied were asked. More than three-quarters of respondents confirmed that there is nothing which could have made their dissatisfaction while 24% of the users pointed out issues which make their disfavour and they were asked to provide a summing up explanations. Within 24 responds, some of them were already mentioned before such as lack of children facility, occurrence of wind corridors which means lack of shelters, lack of a public toilet, lack of places to sit independently, not enough number of litter bins and not enough greenery especially in the waterfront and lack of cheap supermarket. Besides that, respondents addressed some new drawbacks which they did not mentioned in previous answers. Encountered problems were related with poor access for disabled people, lack of colour flowers or lack of bike rental. Moreover, some of the people assessed the place as a soulless place saying that ic could be anywhere in the world. Others were lacking community feeling which could be created for example by community gardens as unfolding of social life is important taking into account Lefebvre's concept of *"lived space"*. Other comments involved the design as some argued that is too modern and it would be happy to see any green walls. The comments also addressed the location of the tram stop as it plays as a barrier for the waterfront.

Even though, the places by many visitors assessed as a successful place, it is relevant to know the opinion what is lacking and what is missing especially taking into account the fact that MediaCityUK is expanding.

Talking about the extension of MediaCityUK which has already started it was interesting to ask people whether they would be willing to take part in a public participation regarding the 2nd phase of MediaCityUK development. Surprisingly, as graph 13 depicts, only 23% of respondents would be willing to engage while 42 % people would not be interested in public meetings and providing their ideas and 35 % of respondents were not sure whether they would like to be part of the participation process. In need to be emphasise that such a small willingness to take part in a public participation can find its justification in the fact that some of the people were

the occasionally visitors of MediaCityUK and they did not feel like deciding about the future role of the investment.

Graph 9. Willingness to take part in public participation meetings regarding the design of the extension of MediaCityUK's outdoor space



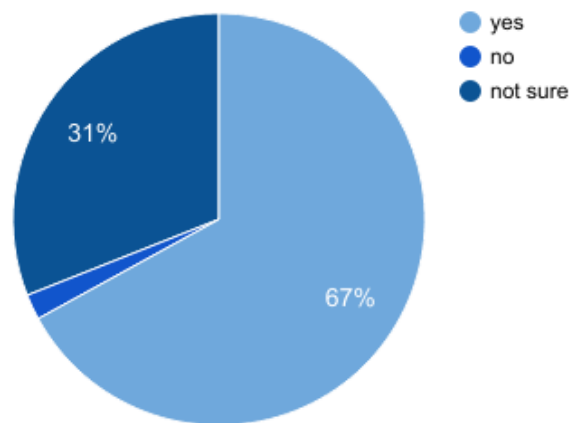
Talking about public participation, the BREEAM Assessor, Becca Warren provided an explanation to the above-mentioned results as she said that *“People are probably aware that they will spend some time during the workshops and then realize that they do not contribute at all and the ended up saying “I have no time””* (Warren, 2017). However, as Becca Warren mentioned, it should not be the reason of not trying to conduct public participation at all.

Above presented results which show insufficient level of people who would be interested in public participation can be a reason why post-occupancy evaluation should be used more broadly. If there is no substantial assessment of people's needs before the development is conducted, the opinion should have been gathered at least in a post-construction phase. Post occupancy evaluation using survey as a main tool is a great example of honest assessment of respondents' needs especially in a case when the development is going to be expanded such as MediaCityUK. Conducting a 2nd phase of any project is a perfect moment to conduct the assessment of previously developed 1st phase as apply the outcomes in the future

site. In that way, post occupancy evaluation can play a role of substitution to public participation.

Due to the fact that MediaCityUK project is going to be extended into the second phase, it was interesting to get to know people's opinion in that matter. Respondents were asked whether the extension of MediaCityUK is a good idea.

Graph 10. Opinion about the extension of MediaCityUK development.



As the 10th graphs depict, the vast majority of respondents (67 %) confirm that the 2nd phase of the development is a good idea and they want MediaCityUK to augment. No opinion in that matter expressed 31% of the respondents as they have not feel attached enough to the 1st MediaCityUK phase in order to have the constructive opinion about the ongoing plans. Two people did disagree with the idea of the extension of the MediaCityUK as they claimed that it would be a good extension if it would concern the outdoor areas, leisure and resident's needs, however they did disagree with the extension as it may be only related with building more office buildings and modern skyscrapers.

6.4.2. Conclusion

The aim of the survey was to evaluate MediaCityUK outdoor space whose layout and construction was completed since early 2012, therefore the space has been already used for a certain period of time. For the last five years people who have been using the space already have their opinion about MediaCityUK and they could also distinguish some positive and negative aspects of this place. Users' experience is strongly related to the concept of "*perceived space*" presented by Lefebvre (1991). Hence, the main focus of that part of the analysis was getting to know users' satisfaction and dissatisfaction with the MediaCityUK environment. What is more, the survey was aiming to identify recommendations for the second phase of the MediaCityUK project which is already under construction.

MediaCityUK has been subject of some criticism over the last five years. Several articles have called it 'an island for wealth' (Arayici, 2014). Therefore, this report sought to address why this is a case and whether the users share the same thoughts towards this space. In order to investigate this issue, different questions were asked trying to identify people's opinions about key elements and features of the space. However, the survey concluded with the final question asking in a very straightforward way whether people consider MediaCityUK as a successful place despite of the drawbacks people have found. Summing up the key findings from the survey, the park was the mostly used space while the boulevard by the water gained the least popular used place. The reason for this was mainly the greenery, as people claimed that boulevard does not have any greenery and at the same time creates a feeling of an empty space surrounded by the concrete. Users consider MediaCityUK as a place for relaxation where they can spend time with their friends and family sitting outside in the open space or eating lunch in nearby restaurants. Coming to MediaCityUK was assessed positively, as there is dedicated tramp stop at the site which makes the transportation very practical and convenient and most of the people were satisfied with this mode of transport. However, speaking about mobility, there is insufficient number of bicycle racks in MediaCityUK which might be the reason why people are not coming to the site by bike. Only 7 % of the respondents chose bike as a way to getting to MediaCityUK. The situation with the bikes is a perfect example why post occupancy evaluation is needed, as it shows that the planned number of

bicycle racks on a site does not correspond with user's needs, as seen in figure 27, where bicycles being squeezed in front of the BBC offices. It need to be said that when it comes to the maintenance level of MediaCityUK, the place is considered as having a very good maintenance level, as there is a cleaning and gardening services taking care of the site. One of the most important aspects in conducting the survey was getting to know people's desires towards MediaCityUK by asking what kind of facilities are missing. Most of the people are missing benches especially with the possibility to lean back and relax. The second was desired elements was greenery. Even though the park is full of trees and plants, the piazza and boulevard by the water do not have any greenery, therefore the overall opinion about greenery is rather poor. The third most needed facility is a playground for children as the site is visited by the families with young kids and there is no place for them to play. Despite some drawbacks in relation to MediaCityUK, respondents still experience positive emotions while spending time in MediaCityUK such as joy, excitement and pride. Speaking about the final results, 30% of respondents were very satisfied with the outdoor space, 57 % users were just satisfied, 12 % did not have any opinion on that while only 1% expressed its dissatisfaction. Based on the interview with the city planner - Tim Hartley, said "*the objective assessment is that on a whole MediaCityUK is a good thing, however it could be a much more better*" (Hartley, 2017). Beside the fact that MediaCityUK is being considered as 'an island for wealth' (Arayici, 2014), Tim Hartley claims that the users are still satisfied with the project due to the fact that many of them remembered how MediaCityUK looked before as this plot of land was totally abandoned, deserted and with the industrial outlook. Moreover, when the city planner was asked whether the residents and MediaCityUK users are satisfied with the space he mentioned "90% of the people would say MediaCityUK is successful, however if you would ask how successful - it is different (Hartley, 2017). His two sentences perfectly summarize the outcomes of the survey as respondents answering different survey's questions they expressed negative aspects and suggestions what could have been done differently, however at the end they assessed the place a victorious. Due to the fact that MediaCityUK is going to be expanded, it would be more than a perfect opportunity to implement all the feedback gained from the survey in the second phase of the development.

7. Discussion

This chapter is going to discuss issues such as public participation, vision of the second phase of the MediaCityUK project and land ownership in relation to post occupancy evaluation. Based on the analysis, respondents of the survey are not willing to participate in public participation, therefore it is interesting to investigate how the interaction with the residents could be conducted using different tools. The issue of public participation leads to the second phase of the MediaCityUK as the extension is already happening and it is not sure whether the needs of residents will be considered in the further development. The last part of discussion will be dedicated for the land ownership issue, as based on the interview with BREEAM Assessor this can affect the vision of the development as the city as a planning institution and the investor might have different goals and aspirations towards the same space. The discussion will help to underline the positive aspects of conducting the post occupancy evaluation of urban spaces which should enhance different parties such as city planners, environmental designers and investors to carry out post-construction follow up of particular finished development.

7.1 Public participation

The theory chapter involves the importance of fulfilling the users' needs and requirements once creating the neighbourhood community. The emergence of tools such as public participation has started to be used more often (Francis, 2003). According to the BREEAM Assessor, public participation processes were conducted in connection with the development of MediaCityUK, as this was mandatory for fulfilling the terms of a BREEAM Certification. She also confirmed that consultation documents were produced. However, in her opinion there is a huge confusion of terminology, because simply providing information is often called public consultation. Nevertheless, Becca Warren emphasized that the lack of active public participation where citizens interact with designers and planners is not just an issue in the case of MediaCityUK but it is a UK-wide problem and probably a worldwide problem. The assessor is afraid that in large scale projects, public participation does not really happen. However, she said *"when you carry out public participation, you end up with*

happy residents and satisfied users and even though the public participation might be challenging, there is no excuse of not doing it” (Warren, 2017). This observation complies with the theoretical arguments of meeting the need of users. Moreover, when the city planner - Tim Hartley - was asked about the public participation procedures regarding MediaCityUK development, he also confirmed that there were no strict requirements on public participation in 2008 when project was developed. Back then (2008), a letter dropped into people’s letter boxes, and that was considered as a public participation, i.e. it was a matter of just providing people with information without hearing their feedback on the development plans. Requirements in relation to public participation have changed since 2008 and presently more efforts are being made in the UK to conduct more active forms of public participation. Respondents of the conducted surveys were asked whether they would like to participate in public participation activities in connection with the development of the second phase of the MediaCityUK project, surprisingly only 23 % of respondents were willing to participate, while 42 % said that they would not like to participate public participation meetings and 35 % of respondents were not sure because they were not so closely attached to MediaCityUK to be part of such an exercise. According to Becca Warren, one reason why people might not be interested in participating in such consultations is that people are probably aware that they will spend some time during the workshops, and afterwards realize that their participation has had little effect on the project. If people feel this way, then this will undermine the legitimacy of public participation processes. This resonates with the observation that public participation methods are detrimental and can lead to scepticism (Innes, 2004).

If public participation processes are too challenging, investors can find other means of getting to know peoples’ opinion, e.g. post occupancy evaluation could serve as a substitute. However, carrying out post occupancy evaluations instead of conduction public participation consultation processes can only be applied in projects where there further development phases envisioned and MediaCityUK is a perfect example where such a practice could be applied. Conducting a comprehensive survey of the users’ opinion about the first phase could provide useful lessons regarding the users’ level of satisfaction and the ways in which things could be improved and/or done differently in the next phase. All the identified drawbacks could be used in designing

the second phase of the project as the POE would show very clearly how the desired urban space should look like. As it was mentioned in the theoretical part about post occupancy evaluation, one of the long-term benefits of POE is the fact that the obtained results can contribute to the further improvements of the space (Preiser, 1988) and this approach could be used in the second phase of the MediaCityUK project.

7.2. Future vision of MediaCityUK - the second phase of the development

The second phase of the MediaCityUK development project has already started and currently there are two residential building under construction on the waterfront, as it can be seen on the figure 31. (Elliot, 2017).



Figure 31. Second phase of the MediaCityUK development (PEEL Group Commercial materials)

The second phase will focus on developing residential and commercial facilities, in keeping with the original vision of creating a community with a balance between businesses, leisure and residential uses (Fig. 32.) (MediaCityUK website, 2017). The

website provides comprehensive description of each plot (Fig. 31. - Phase 2 building). According to the plans the plot C4 will be a mixture of residential and offices buildings with a “*semi-private contemporary garden square*”. The wording, semi-private, alludes to the creation of a space that might be closed for public use or in which the public will have limited access. However, for plot C6 the vision is to have a residential building with a private courtyard or pocket park. What more, plots D3, D4, D5 will be dedicated as residential areas with “*private amenity space in the shape of the sky garden*” (MediaCityUK website, 2017). These development plans are, however, at odds with approach presented by *Project for Public Spaces*, which argues that in order to create a successful public space, whether it is a square, park or plaza, the place need to be accessible for all in the community (PPS, 2016).



Figure 32. Visualisation of the second phase of the MediaCityUK development (PEEL Group commercial materials)

Moreover, as it is described in an article about the privatization of public space: “*privately owned public spaces are frequently criticised for diminishing the publicness of public space by restricting social interactions, constraining individual liberties, and excluding undesirable populations*” (Németh, 2011, p.1). It appears that there are some contradictions between what is being presented on the website regarding the various plots and the way the Peel Group describes the second phase as “*new*

public open space created for flexible use by the community that has grown from the regeneration of the site so far, as well as for those who will become part of this community as the regeneration continues” (MediaCityUK website, 2017). This appears at odds with the intentions of developing plots with a more private character. In light of our findings regarding phase one, and given that the investor, mentioned in the citation above, wants the second phase to be a place for the regenerated community, then it seems that he should consider community needs rather than developing private open spaces, which does not correspond with the sustainable vision of neighbourhood and the BREEAM certification ideals. It can be seen that in cases when the particular plot of land is owned by the private investor, urban open spaces which are going to be a part of that space, not necessarily need to be accessible for the broader community. This leads the discussion in another diffraction where the land ownership issue will be elaborated.

7.3. Land ownership

According to British social scientist and geographer, Doreen Massey, the most unfavourable outcome of neo-liberalism is the privatisation of public spaces (2013). She argues that even though people can use the space, their activities might often be hemmed in. Based on the theory presented in this master thesis, a public space should be a place where all the residents are free to go (Carmona, 2010). The issue related with land ownership was also raised by the BREEAM Assessor for the MediaCityUK project and it was a main motivation for opening a discussion about land ownership, as she said that the land where there is currently BREEAM Communities project in Malmö is partly owned by the City of Malmö and the investor (Becca Warren, 2017; off the record). Due to shared interests towards this development from the public and private sector, BREEAM Assessor claims that Swedish case is the best example to follow in terms of cooperation between the City and the investor.

This suggests that the creation of successful public space might depend on the fact whether the particular urban space is privatised or not. The fruitful collaboration in Sweden did happen due to the shared rights towards Masthusen while in the case of

the entire plot of MediaCityUK was owned by the investor - PEEL Group (Hartley, 2017), therefore the collaboration between the investor and the city was weak. This can find its reflection in Becca Warren's statement that The City of Salford is glad that the investor is going to invest so much money in the deprived area, and the City's contribution in that project was simply allowing PEEL Group to develop MediaCityUK without any limitations. This was also confirmed by the City Planner - Tim Hartley - as he explained that the collaboration between the City of Salford and PEEL is rather difficult. According to Hartley, PEEL is the main landowner in the city, they are the biggest organisation in Salford, and "*PEEL wants one thing while the city wants other thing*" and "*PEEL is very big and very powerful and usually they get what they want*" (Hartley, 2017). PEEL Group became so influential due to a decision made long time ago by one clever man who bought substantial plots of land very cheaply, and is now able to develop and sell off the land with a large profit. Even though Tim Hartley considers MediaCityUK to be a successful place, he also had some criticism towards the project. Among the many drawbacks of MediaCityUK, the city planner highlighted the problem of lacking the social housing within the investment. Moreover, he would have liked to have seen more public space within the investment as he explained that there is not enough public space in the area surrounding MediaCityUK (Fig. 33.)

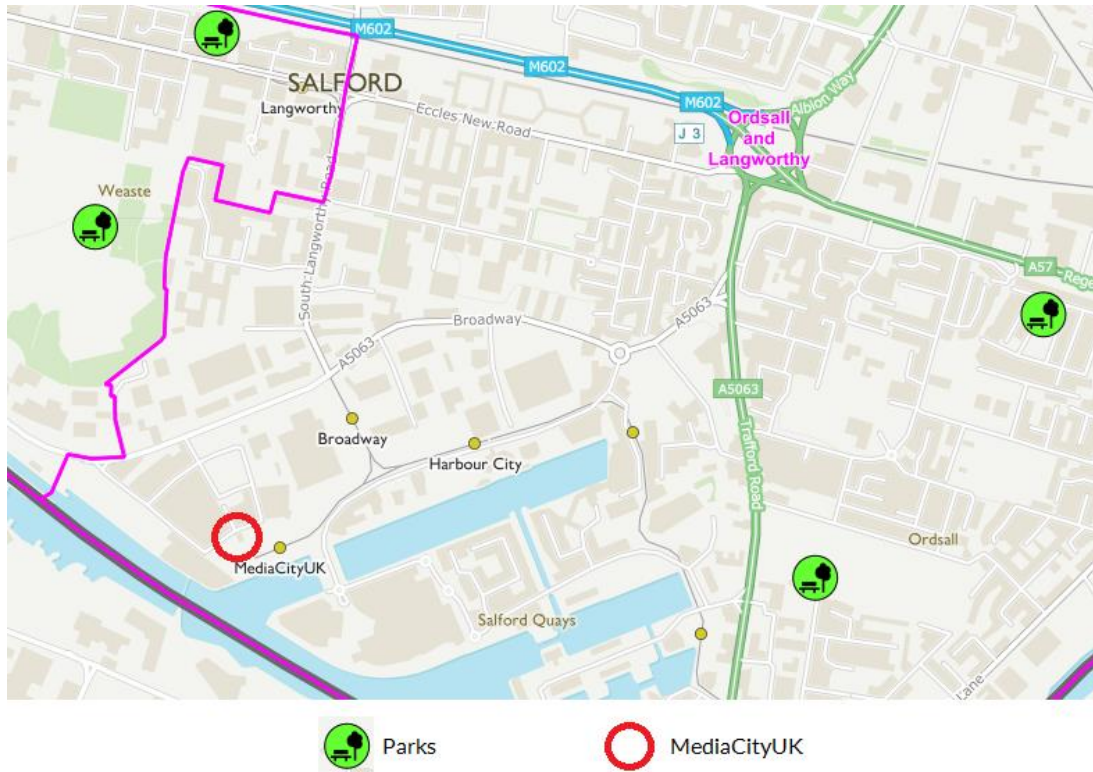


Figure 33. Green spaces in a close proximity to MediaCityUK (Salford City Council)

In the area surrounding MediaCity UK, south of the M602 road and west of Trafford Road, there is only one small park and a cemetery (Weaste). The closest park is Ordsall Park. However, one has to cross a busy road in order to get there. For the residents who live in the area marked in red (Fig. 33.), MediaCityUK is the only green public space, therefore it would make sense to address the needs of local people from the neighbourhood.

In order to design the space so that it better reflects the residents' needs and wishes, actions need to be taken to gain the desired information and this can be accomplished by conducting post occupancy evaluations (POE). POE can provide insights/results that can be used directly by facility managers, building owners and landlords as they are likely to have an interest in trying to solve the encountered problems. Another group of recipients, who might be interested in the results from POEs, are the designers involved in these kinds of development projects. order to help them better design built environments in the future. Moreover, POE's result

might be directed to stakeholders related to building's planning processes as they are the decision makers regarding the future architecture. The last interested group who might be interested in POE are researchers who conduct studies about relationship between built environment and people. Above mentioned examples of different parties which might be interested in POE's results were related to the building sector, however they can be easily converted to the urban open spaces as in this sector, the same group of people can be distinguished.

8. Conclusion

What can different parties such as city planners, environmental designers and investors learn from the post occupancy evaluation of BREEAM certified urban space?

In this master thesis, a post-occupancy evaluation of an urban open space was carried out using the case study of MediaCityUK. The purpose of this study revolved around the user's satisfaction level within the MediaCityUK outdoor space. One of the most relevant aspects of conducting the post occupancy evaluation was the assessment of what extent the current urban space condition reflects the needs and requirements of its users. In order to analyse this issue, four different methods were used in order to conduct a comprehensive analysis and provide relevant conclusions.

The evaluation of MediaCityUK according to Gehl's 12 quality criteria showed that none of the categories such as protection, comfort, and enjoyment achieved the successful rate. Even though 5 out of 12 criteria was scored as having good quality, the overall assessment could not be seen as living up to the standards. The biggest drawbacks were seen in lack of places to hide both from the rain and strong wind which affects the analysed space. Moreover, the assessed space does not provide its users with the possibility to do any kind of activities, therefore there is a high need for equipment such as a playground for children or an outdoor gym.

The way the space is used, by whom, and when were other relevant criteria which was taken into consideration. Based on the SOPARC method, it can be concluded that the space needs improvements in order to intensify user activity as walking is the main activity in the MediaCityUK's outdoor public space. Moreover, the results show that more than 80% of users are adults and this finding raises an issue that MediaCityUK is not used by different age groups. Therefore, proposing more activities for seniors, children, and teenagers could increase space users from other age range.

The most important indicator used for the purpose of this master thesis, is the survey conducted among users of MediaCityUK's urban space. Interviewing people was the most relevant way of gathering feedback. The survey presented a variety of answers which led to drawing the final conclusions. Respondents were able to give a legitimate criticism towards the urban space of MediaCityUK. Some of the key drawbacks concern lack of the greenery both in the waterfront and piazza, lack of amenities for children such as playgrounds, or insufficient number of bicycle racks. However, despite respondents highlighted suggestions for how things could be done differently, they still assessed MediaCityUK as a successful project.

All these results presented in this master thesis are relevant for the purpose of improving the existing urban space of MediaCityUK. This can be achieved by conducting a post occupancy evaluation where the feedback can be used by different parties such as city planners, environmental designers, and developers. In line with the presented results, it is feasible to create urban spaces which can be improved while meeting user's needs and requirements by considering the feedback in the designing process. These particular findings from the post occupancy evaluation of the urban space in the MediaCityUK case could be used in the second phase of the project of MediaCityUK.

Moreover, the main findings of this study show that BREEAM Communities can be a way to enhance the quality of urban spaces. In order to achieve this, BREEAM Communities tool needs to include the post occupancy evaluation as an obligatory requirement.

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Appendix 1

Intercept surveys scheme

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AALBORG UNIVERSITET

Survey

MediaCityUK - outdoor urban space

Manchester 2017

1. What is your relation to the MediaCityUK?
 - I live here
 - I work here
 - I study here
 - I live outside of MediaCityUK
 - In which neighbourhood do you live?
 - Other comments
2. How frequently do you spend time in MediaCity outdoor space?
 - Almost every day
 - A couple of times a week
 - Three to four times a week
 - A couple of times a month
 - Hardly use
 - Other comments
3. When do you usually spend time in MediaCityUK outdoor space?
 - During the workdays
 - During the weekends
 - Both
 - Other comments
4. At what time do you usually spend time in MediaCityUK outdoor space?
 - In the morning
 - During my lunch break
 - In the afternoon
 - In the evening
 - At night
 - Other comments
5. Which part of the MediaCity outdoor space do you use mostly?
 - The Green (park)
 - The Stage (Piazza)
 - Boulevard by the water
 - I use all of the mentioned places
 - Other comments
6. Once you come to spend time in MediaCityUK outdoor space, how much time do you usually spend here?
 - Less than one hour
 - Around one hour
 - More than one hour
 - Other comments
7. I feel safe in MediaCityUK outdoor space:
 - During the day:
 - Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
 - During the night:
 - Strongly agree

- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree
- Other comments

8. MediaCityUK outdoor space is well lit during the evenings.

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree
- Other comments

9. With whom do you spend time in MediaCityUK outdoor space?

- Alone
- Friends
- Family
- Co-workers
- Pets
- Other

10. What is the main purpose of using MediaCityUK outdoor space (check of all that apply).

- Simple relaxation and walking
- Spend time with family/ friends
- Exercise/ fitness
- Attend organised events
- Walk your dog
- Enjoy nature and waterfront
- Eating lunch
- Other

11. What kind of transport do you usually use to get to MediaCityUK/ get out from the MediaCityUK?

- Walking
- Cycling
- Public transport
- Car

12. Is it easy/convenient to get to MediaCityUK

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
 - What makes it inconvenient?

13. Do you attend events which are organising in Piazza in MediaCityUK?

- Very frequently
- Frequently
- Ocasionally
- Rarely
- Very rarely
- Never
- Do you remember any special events you want to tell us about?

- Other comments
14. The type and number of equipment in the outdoor space in MediaCityUK is sufficient? (place to sit, lights, shade elements, litter boxes)?
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
15. The equipment (place to sit, lights, shade elements, litter boxes) in MediaCityUK is comfortable and practical.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
16. I like the equipment (place to sit, lights, shade elements, litter boxes) in MediaCityUK in terms of form and colour.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
17. Equipment in MediaCityUK outdoor space (place to sit, lights, shade elements, litter boxes) is clean and well maintained.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
18. Walking elements such as paths and pavement are comfortable and convenient for walking.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
19. Walking elements such as paths and pavement are clean and well maintained.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments

20. It is enough greenery in the area of MediaCityUK.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
21. Green areas in MediaCityUK are clean and well maintained.
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
22. What facilities/ activities would you add to MediaCityUK outdoor space?
- More benches
 - More greenery
 - More litter boxes
 - More lights
 - More shading elements
 - Outdoor gym
 - Playground for children
 - More organised events
 - Nothing
 - Other improvements
23. What kind of emotions do you experience in relation with MediaCityUK outdoor space?
(check of all that apply)
- Excitement
 - Joy
 - Desire
 - Pride
 - Connectedness
 - Fear
 - Boredom
 - Loneliness
 - Other comments
24. Are you satisfied with MediaCityUK as an outdoor urban space?
- Strongly agree
 - Agree
 - Neither agree or disagree
 - Disagree
 - Strongly disagree
 - Other comments
25. Is there any aspects that you are dissatisfied with in terms of MediaCityUK as an outdoor urban space?
- Yes (explain why.....)
 - No

26. Are you aware of the fact that MediaCityUK is certified by BREEAM Communities and accordingly is considered to be a sustainable neighbourhood?

- Yes
- No

27. Were you involved in public participation regarding the project of MediaCityUK?

- Yes
- No

28. Would you be willing to take part in public participation meetings regarding the design of the extension of MediaCityUK's outdoor space?

- Yes
- No
- I am not sure
- Other comments

29. Does extension of MediaCityUK project a good idea?

- Yes
- No
- I am not sure
- Other comments

Metrics

Age:

- under 20 years old
- 21-30 years
- 31-40 years
- 41-50 years
- 51-60 years
- Over 60 years

Gender:

- Male
- Female

Appendix 2

SOPARC observations form

DATE _____ PARK NAME _____ OBSERVER Init. _____ PERIOD: _____
 TARGET AREA _____ START TIME _____
 END TIME _____

Target Area # _____ Subtarget Area # of Total Subtarget areas _____

CONDITIONS OF TARGET AREA
Accessible (e.g., not locked or rented to others) ? Yes ? No **Dark** (e.g., insufficiently lit) ? Yes ? No
Usable (e.g., is not excessively wet or windy) ? Yes ? No **Empty** (i.e., scan area is empty) ? Yes? No
Equipped (e.g., removable balls available) ? Yes ? No
Supervised (e.g., not locked or rented to others) ? Yes ? No
Organized (e.g., team sporting event) ? Yes ? No

Comments:

PEOPLE	ACTIVITY	AGE GROUP				ACTIVITY LEVEL		
		Child	Teen	Adult	Senior	S	W	V
Participants	Primary Activity							
Female								
Male								

Fitness Related Codes: aerobics (dance/step aerobics) fitness stations jogging/running **Street/leisure** exercises (pull ups)

Sport Related Codes: baseball basketball cheer leading dance

Active Game Related Codes: handball horseshoes soccer tennis/racquet

Sedentary Related Codes: chess/checkers/cards lying down picnic (food involved) reading