

URBAN DESIGN AND SOCIAL CAPITAL: LESSONS FROM A CASE STUDY IN BRAUNSTONE, LEICESTER, UNITED KINGDOM

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ABSTRACT

A valuable asset in sustainable regeneration is the 'community' in an area with their developed networks, bonds and ties or in other words its social capital. Braunstone in Leicester is typical of many disadvantaged areas in the UK, with persistent socio-economic problems exacerbated by a poor physical setting. With a large regeneration programme funded by the New Deal for Communities coming to a close, we conducted a case study to explore the impact of improved local facilities and the effect of walkability on social capital.

The lessons learnt suggest that responding to needs at a finer grain is vital in developing neighbourhoods for social capital. Such fine grain responses should include the needs of different user groups, local patterns of use and measures to improve the branded and stigmatised perceptions of neighbourhoods. Accessing services by walking and using public transport is vital to engage in social activities, while a poor physical environment and a lack of accessible services affects levels of participation. Local facilities provide a mediating role in developing social capital in a community by providing opportunity for social interaction that encourages people to reside in an area in the longer term. Integration of the neighbourhood in its wider context with easy connections to the outside world is a vital incentive for longer-term residency if social capital is to grow over a period of time.

Keywords: Braunstone; Community Development; Regeneration; Social Capital; Urban Design; Walkability.

1. INTRODUCTION

Social capital of a community is a valuable asset in regeneration projects. Human capital is the attributes of individuals defined by one's skills, qualifications and knowledge, while social capital refers to an asset generated by being part of a 'community'. The World Bank defines social capital as "the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together (World Bank <http://go.worldbank.org/K4LUMW43B0>, 2004)". Social capital is an intangible asset that develops over time with the goodwill, bonds or trust that result from shared values, outlook on life, attitudes or behaviours that can become a resource to serve common goals. As this concept deals with aspects of social structure that enable social action, it can be a resource in sustainable urban regeneration to achieve common goals such as higher educational attainment, better health, lower levels of crime, more effective forms of government and growth in GDP (Harper, 2001; Aldridge *et al.*, 2002).

The physical design of neighbourhoods can impact on social capital of communities. The contribution of the environment appears as a variable in research on social capital and public health (Macintyre and Ellaway, 1998; Kawachi *et al.*, 1999a; Baum and Palmer, 2002) and also in social capital and crime (Kawachi *et al.*, 1999b, Lindstrom *et al.*, 2003). The manifested nature of social capital in a neighbourhood is context specific and is determined by history and culture, social structures, economic inequalities and individual consumption patterns (Cladrige, 2009). There is lack of operational knowledge on this theoretical construct including any in-depth discussion of the role of physical design

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in relation to social capital. However, there is renewed interest in recent regeneration initiatives to improve the quality of the environment to promote healthy and active life-styles and social equality. This operational knowledge gap if bridged can provide an impetus for sustainable regeneration.

The SUE–MOT (Sustainable Urban Environment: Metrics, models and Toolkits, Engineering and Physical Sciences Research Council grant no. GR/S18311/01) project aimed to encourage key decision-makers to systematically assess the sustainability of urban development by facilitating decision-making at every stage of the development process. In the ‘social capital work package’ we identified urban design attributes that encourages the growth of social capital in sustainable urban development. This paper reports the lessons learnt from a case study in Braunstone, Leicester that explored this relationship to gather operational knowledge.

The New Deal for Communities (NDC) regeneration programme provided resources to tackle five key themes in the most deprived areas in the UK: poor job prospects, crime, educational under achievement, poor health, and problems with housing and the physical environment. In Braunstone Leicester, a £49.5 million community led regeneration scheme - ‘A New Deal for Braunstone (BNDC)’ was implemented in 2002 to 2009 in order to improve the area and to develop the community. There was substantial investment in buildings to provide a library, civic centre, health centre and leisure facilities aiming to improve the quality of life. BNDC comprises nearly 5000 properties with a population size of 15,000 - around 74 per cent of the residential properties are owned by Leicester City Council.

We conducted a case study to explore the impact of improved facilities, buildings and the effect of walkability on social capital in the area. We sought to find answers to two main questions through the case study;

- Has social capital in the Braunstone community been affected by the building of new facilities such as the Brite Centre (learning centre) and Braunstone Leisure Centre (sports facilities)?
- Does the walkability of the neighbourhoods affect the social capital of the area?

As the ‘softer’ and ‘intangible’ attributes dealt with cannot be easily quantified, the study specifically looked at proxies that could be made use of in the assessment of ‘walkability’ and improvement to facilities that helps build social capital.

2. METHODOLOGY

The hypotheses for this study was derived from our earlier work which established key attributes of urban design that contributes to social capital. Historical evidence and relevant literature were reviewed to get an insight into the socio-economic and physical context of the study area. We gathered hard and soft data on key demographic characteristics, walking environment, use of leisure facilities and social capital. A questionnaire survey captured information from one hundred and thirty nine responses from residents living inside and outside the ‘Braunstone New Deal for Communities’ area. The information was gathered as a rank order of preference and as a selection of choices. The data gathered were on the

- Use of the facilities and their physical features and perceptions of local residents on these facilities
- The walking environment, socio-economic background, frequency of places visited for social interaction and participation in social activities
- Trust and sense of belonging within the community.

Following this, two workshops were conducted with two small groups of ten local residents across a range of ages to gather qualitative data on local issues raised in the questionnaire survey, such as the use and perception of the facilities, nature and places for social interaction and key issues on walkability of the area.

A site survey of the walking environment supplemented the data collected from the questionnaire survey. Records of activities in a typical day in the Brite Centre and Braunstone Leisure Centre noted the time and type of activity. Qualitative observations were also recorded regarding the nature of users, what they did at the centres, when and with whom. This was supplemented by ‘user data’ of the Braunstone Leisure Centre provided by the Leicester City Council.

Spatial data, such as land-use patterns, street connectivity, bus-stops, public transport routes and location of the key services (used for social interactions) were collected from secondary sources. The relative street connectivity of the neighbourhoods was analysed considering the density of cul-de-sac streets within each neighbourhood. A proximity analysis was conducted using Geographical Information System (GIS) to assess the accessibility to the key services of the neighbourhoods by walking (within 10 minutes walking distance) and public transport.

3. URBAN DESIGN AND SOCIAL CAPITAL

If intangible assets such as goodwill, bond and trust arise from shared commonalities, can the urban design of neighbourhoods support and promote opportunity for such shared commonalities to develop? Acknowledging the ‘facilitator role’ of the physical environment, Carmona *et al.* (2003) argued that urban designers influence, inhibit, facilitate, and modify, but do not determine patterns of human activity and social life. Gehl (1971) suggests that the physical framework does not have a direct influence on the quality, content and intensity of social contacts. The environment can affect possibilities for meeting, seeing and hearing people acting as a background and starting point for many forms of contact to develop.

We explored the intersection of social capital theory, urban design guidance and empirical research on social capital that considers the built environment as a variable. Our work revealed twelve recurrent attributes that help people to live, work and relax and thus encourage formal or informal interaction and longer-term residency in the area in which they live, aiding the growth of social capital (refer Figure 1). The urban design guidance (UDG) reviewed were from a range of organisations in the UK that publish such guidance, namely: government organisations such as the Department for Environment, Transport and The Regions (DETR), the Department for Transport (DfT), the Office of the Deputy Prime Minister (ODPM) and the Association of Chief Police Officers (ACPO); affiliated government bodies such as the Commission for Architecture and the Built Environment (CABE) and English Partnerships; and third sector organisations such as the Prince’s Foundation for the Built Environment and the Joseph Rowntree Foundation (JRF). The principles of urban design set out in these documents have been extracted from the shared experience of practitioners, on the premise that places can be developed in a way that enables people and communities to achieve their full potential for a higher quality of life.

The key concepts through which urban design can facilitate and allow for social capital to evolve are to design for retaining people in the area for the longer term and to provide for means of repetitive interaction. Extrapolating urban design guidance above together with published research, four themes and twelve attributes that facilitate these two key concepts were identified, thus allowing social capital to evolve (Paranagamage *et al.*, 2010).

3.1. THEME 1 - CONNECTIVITY

Attribute 1 - Movement structure: Walkable neighbourhoods contribute to the presence of people on the streets that fosters a sense of community. Lund (2002) argued that the sense of community was greater in pedestrian oriented neighbourhoods compared to automobile oriented places. Dependence on the automobile corresponds with reducing levels of social participation. People living in ‘walkable’ neighbourhoods knew their neighbours better and trusted them and were more socially engaged (Leyden, 2003).

Attribute 2 - Mixed use: A variety of retail, commercial and community facilities accessible within a walk of five to ten minutes encourages people to use them. Major employment centres, secondary schools and public facilities such as large hospitals if easily accessible through public transport also contribute to the longer term success of neighbourhoods. Mixed-use streets facilitate social inclusion by attracting a wider population of age and ethnicity and also offer employment opportunity. They encourage social exchange and contribute to reduce feelings of isolation and depression by creating a ‘hub’ with strong sense of local identity in their community (Jones *et al.*, 2007).

Attribute 3 - Local facilities: A good range of local facilities, services and amenities with ease of access provide opportunity to be involved in one’s community. They facilitate collective action, allows ties and

a sense of trust to develop. Meeting places such as pubs, corner shops or sporting grounds create opportunities to maintain loose ties and networks.

3.2. THEME 2 - SAFETY

The absence of 'social buffers' such as formal and informal networks is correlated to high incidence of crime in urban areas. There are fewer muggings, assaults and burglaries in communities with tight bonds and active participation (Lindstrom *et al.*, 2003). Perceptions of safety are associated with trust in neighbours. The sense of reciprocity is associated to bonding capitals (Baum and Palmer, 2002) that result in feelings of belonging within the neighbourhood.

Attribute 4 - Ownership: Places designed with sensitivity to the needs of the users with good integration between buildings and external spaces, encourage social interaction and helps to create a sense of place. Well used places with a sense of ownership provide fewer opportunities for crime.

Attribute 5 - Natural surveillance: Design can have a role in creating a sense of safety and security. Streets which are well overlooked and active throughout the day and evening benefit from the presence and surveillance of residents and visitors.

Attribute 6 - Access and footpaths: Paths should lead people directly to where they want to go by foot, cycle or public transport. To ensure the presence of others, pedestrians, cyclists and vehicles should run alongside with good visibility. Clear signage, landscaping and points of interest such as market stalls, places to sit and street art maintains the interest of users.

3.3. THEME 3 - CHARACTER

Attribute 7 - Context: Sensitivity to context makes one place different from another which people can appreciate easily. Those who identified themselves with the neighbourhood as a unit which is larger than the individual home but smaller than the district, were more likely to have bonding capital, suggesting that a sense of scale adds to a sense of belonging (Altschuler *et al.*, 2004).

Attribute 8 - Public space: Character of public space will vary as 'go to places' or destinations for staying, eating, meeting or events, 'go through' or as spaces to pass, such as favoured streets or squares, or 'stop in' places, to sit and watch the world go by; or indeed a combination of all these. Such places are a resource for both individuals and communities for social interaction to sustain a sense of community and to provide opportunities for bonding, making ties and bridges that promote 'well-being'.

Attribute 9 - Personalisation: Correct levels of privacy enable people to feel at ease within their home. Provision to fix their personal stamp on a dwelling and surroundings also contribute to the sense of identity. The limited range of visible attributes may manifest the shared values for a neighbourhood according to unwritten rules. Norms and shared values are also within latent conformities that underlie the manifested components in the design of domestic space such as in 'Space codes' (Hanson, 1998) that may need to be recognised.

3.4. THEME 4 - DIVERSITY

Attribute 10 - Life cycle needs: Successful places have the adaptability to changing circumstances and are inclusive to diverse needs of people allowing for changing needs across the lifecycle. For example, the attachment to a place in older age constructed by long residency helps develop trusting and reciprocal relationships with neighbours.

Attribute 11 - Mixed tenure: Sustainable urbanism should promote social integration and mitigate the stigma associated with social housing providing a choice of tenures with a range of housing sizes and types. There is decreasing levels and class specific participation that suggests a decline in social capital in the UK. If differences may not allow for bonding, neighbourhoods could help increase social inclusion by providing a mix of housing types for degrees of affordability contributing to bridging social capital. Shared streets used by different tenure groups such as social and private tenants and owner occupiers, increases the chances of spontaneous interaction, thus help build social capital.

Attribute 12 - Life style differences: Exclusion by design is more likely to be felt by marginalised groups such as disabled, older people, minority faiths, and carers with young children or women. If neighbourhoods accommodate different densities accommodating housing for couples, singles and families, the differences in lifestyles between the groups would demand a variety of services and facilities to sustain them.

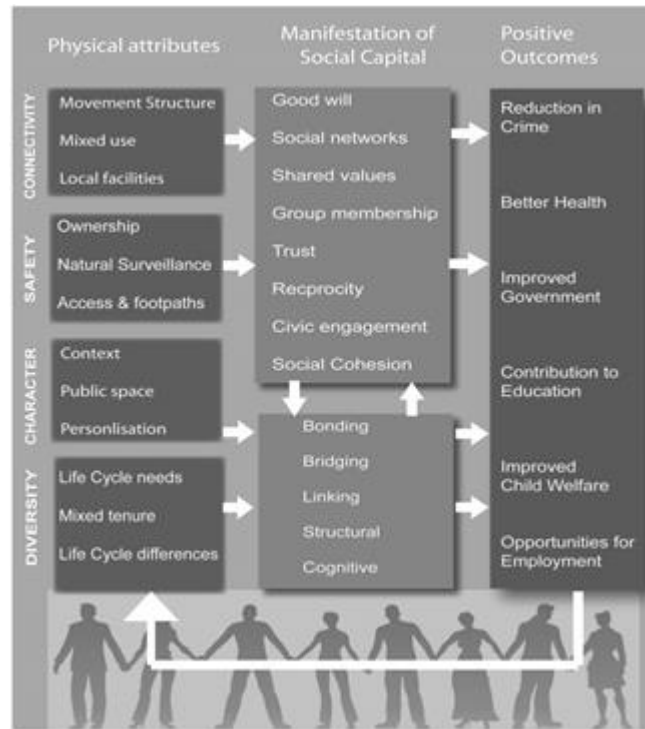


Figure 1: Physical Attributes Contributing to Social Capital

4. KEY FINDINGS

It is clear from our previous work described in the preceding section, that the built environment plays a mediating role for social capital to develop. Therefore it was unwise to directly measure a relationship between social capital and attributes of urban design in the Braunstone case study. We used proxies such as the use of local facilities and degree of walkability, which indicated the level of opportunity the built environment, can provide to foster this asset.

Overall, the findings suggest that Braunstone is typical of many disadvantaged areas, with persistent socio-economic problems exacerbated by a poor physical setting. Local facilities and neighbourhood walkability provides incentives for longer term residency, and facilitates social interaction helping social capital to evolve and grow. Accessing services by walking and public transport proves vital to perform the day-to-day life and social activities; on the contrary, a poor physical environment, lack of accessible services and public transport affect levels of participation in social and leisure activities thereby limiting opportunities for social interactions. This in turn can reinforce health inequalities and social isolation of the most disadvantaged groups from the wider communities (Marmot, 2010).

However, findings suggest that responding to needs at a finer grain, rather than that of the larger neighbourhood as a whole, is a vital requirement in developing neighbourhoods for social capital. The findings are not mutually exclusive but relate to each other closely.

4.1. SOCIAL CAPITAL IN BRAUNSTONE

The strong sense of community prevalent in Braunstone indicated high levels of social capital. The importance of socialising was highlighted, comparing well with the results from 2008 MORI survey data (Boeck and Lea, 2009) with high percentages stating that people in the community were friendly. There

were good levels of trust with feelings of being part of the community and a significant number giving unpaid help in the community (refer Figure 2).

Longer term residency in the area is an important proxy as social capital evolves over time with increasing reminiscence and face-to-face interaction. Respondents reiterated the importance of such interaction through the opportunity to meet as “I lived in the same house for 42 years in Braunstone; I was 21 when I came here; A lot of people in the area used to work for firms; Every firm had their own social activities; own big swimming pool; dancing activities and Quakers activities; night time dinners; have a shower and go out to the netball clubs, absolutely fantastic.”

Many residents were either satisfied or fairly satisfied with their accommodation, and did not have an intention of moving. Nearly half of those who intended to move in the next two years wanted to be within 15 minutes walking distance to their current home or move within a neighbouring area, showing strong connections to the area. More than two thirds indicated a satisfaction with the area, standards of living, surroundings and friendships, which is comparable to the national average. This is a strong positive indicator for the intention of longer term residency.

The over 65s age group had comparatively a high level of social capital compared to the younger ages. Couples without children and families with children also reported higher levels of social capital. As such, local connections and networks may be more important for people with particular lifestyles and in specific stages of their life. Social capital may increase with longer term residency as those who had lived in the area for more than 10 years had the highest level with levels increasing with the length of residency.

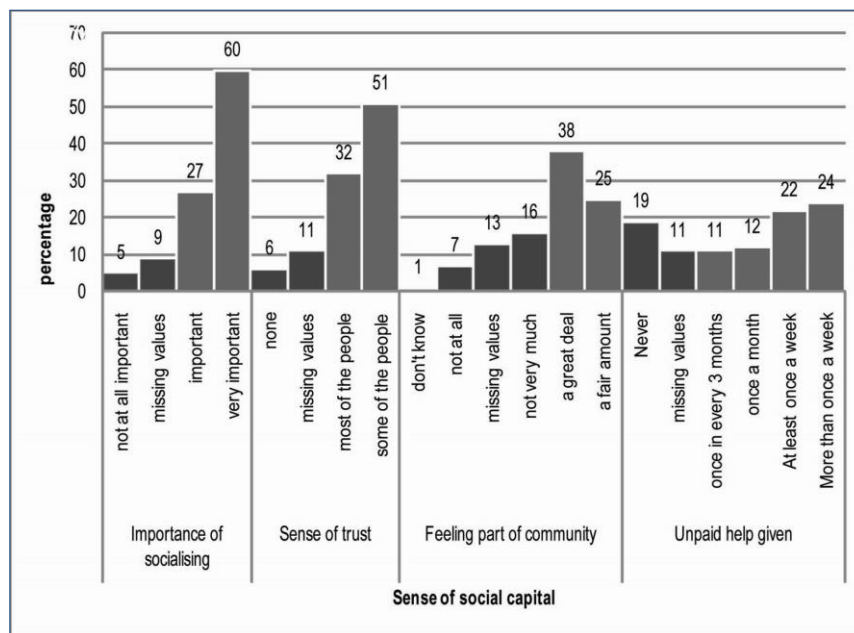


Figure 2: Social Capital Measurements in Braunstone

4.2. RESPONDING TO NEEDS OF DIFFERENT GROUPS

The design of neighbourhoods such as Braunstone should be fine-tuned to the needs of smaller groups if a growth of social capital is to be expected. Because patterns of socialising vary at a fine grain, the physical design of facilities and neighbourhoods needs to cater for this variation. The message was clear as said by an older respondent, “we need more activities in the Braunstone park where older people could watch the younger generation in their activities”, suggesting a level of intervention that considers an inclusive approach sensitive to needs. To another respondent, “Braunstone had certainly improved; People are a lot friendlier; I lived in sheltered housing in Braunstone for two years; I have been meeting people in Braunstone and they are lovely; Facilities for older people are a little bit...mm” suggesting that opportunities for migrants to interact with the community would be important to develop bonds and bridges.

As required by the demographic profile, local facilities need to be responsive to the emergent needs of groups if a growth of social capital is to be encouraged through better use of facilities. For example, the elderly liked to socialise rather than engage in physical activity, youth did not use the facilities for

Socialising while those with low incomes found that, activities did not cater for their needs. Families with children had expressed concerns of anti-social behaviour which prevented them from using the facilities more (refer Figure 3).

For those inclined to walk, such as those without cars, the perceived safety of the environment was a clear incentive, whereas for others, such as those with cars, comfort and convenience were important. A poor quality environment and lack of access to services affects walking behaviour, negatively affecting social interactions of those with low income. As such, a detailed understanding of expectations needs to be taken into account when deciding the priorities.

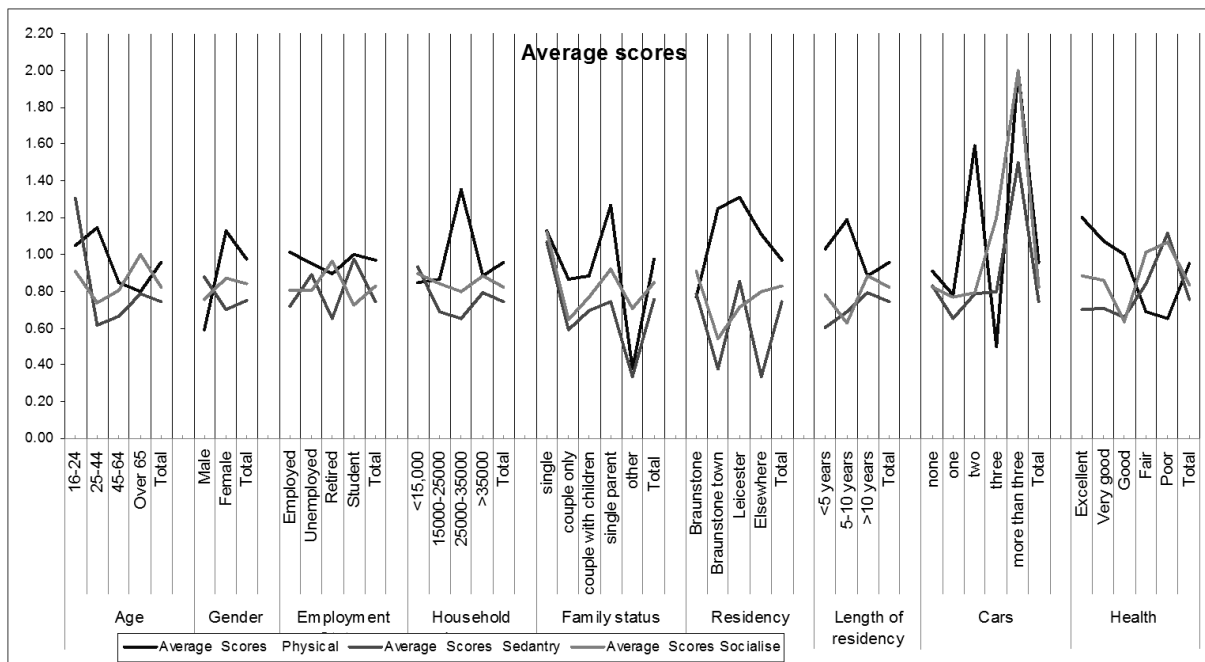


Figure 3: Levels of Social Capital in Groups Split by Nature of Activity

4.3. RESPONDING TO LOCAL PATTERNS OF USE

Braunstone and non-Braunstone residents used the local facilities for different purposes. For locals, especially, longer term residents, they were mainly social hubs to meet friends and family as well as for skills enhancement. Spaces which allowed for socialising, for example waiting areas were used for casual connections such as a quick chat among those who were attending classes or waiting to pick up children from a crèche. The library had a range of spaces creating opportunity for interaction such as places for coffee mornings, with adjacent spaces of relative isolation for quiet study. In comparison, the Braunstone Leisure Centre offers potential for short casual connections encouraging weaker bonds among the diverse range of people that use it, which plays an important role in social capital. The arrangement and positioning of spaces in facilities can add to the ambience needed for the different forms of bonding, bridging and networking which take place. In places such as Braunstone where strong bonding capital exists, local facilities and services can play a significant role in fostering better health. Social capital can also influence behaviour and choices to adopt a healthy life-style with such social exchange contributing to improve wellbeing and also provide informal support and care.

For non-residents of Braunstone, the facilities were places for physical leisure activity in addition to skill enhancements. The participation of outsiders within the community could contribute positively to counteract the stigma and isolation from Leicester City that Braunstone suffers from, and promote the area as an inclusive place. Encouraging bridging and linking social capital is important for Braunstone if the vision to change from the current mono- tenure social housing to a more mixed tenure estate is to be promoted.

4.4. RESPONDING TO NEEDS OF LOCALITIES

The Braunstone Park divides the area into two distinct parts: the North and the South. Poor connectivity and limited pedestrian routes across the park had deterred walking between these two neighbourhoods. Braunstone is known to have previously suffered from lack of services with closures of existing services worsening the situation (Hickman *et al.*, 2008). Accessing services within the local and surrounding areas by public transport was also seen as a problem. As said by a respondent “The access is the problem. If not for the bus I won’t be able to go there. There is a lot that goes on there but I don’t go to the Braunstone Leisure Centre; I went there for swimming but that did not work out; they needed a big one in the centre for all people of Leicester; It is in the wrong place.”

The relative walkability in the North was higher as measured by perceptions on the walking environment, area connectivity and access to services by walking and public transport. Distance to services, personal security concerns, cleanliness (state of the gardens, litter on the street), condition of pavements, lack of street lights and pedestrian crossings were problems highlighted in both the North and the South. These are likely to have a negative impact on the quality of the walking environment thus social capital. Using public transport to access services remained difficult, especially for those living in the South. In the North, distance to services was the main barrier to walking, exacerbated by a lack of time to access services by walking in general. In both the North and especially the South, accessing services located in the neighbouring areas by public transport remains difficult, as seen by the bus route map. Therefore, a combination of factors such as low car ownership, relatively poor public transport and low average household income and better access to services in the North have contributed to the higher level of social interactions within the area (refer Figure 4). This may have impacted the higher levels of participation in social activities and sense of belonging in the North, whilst the higher levels of trust in the South could be related to the higher income levels revealed by the residents as North being the ‘dodge city’ while the South was ‘Texas’.

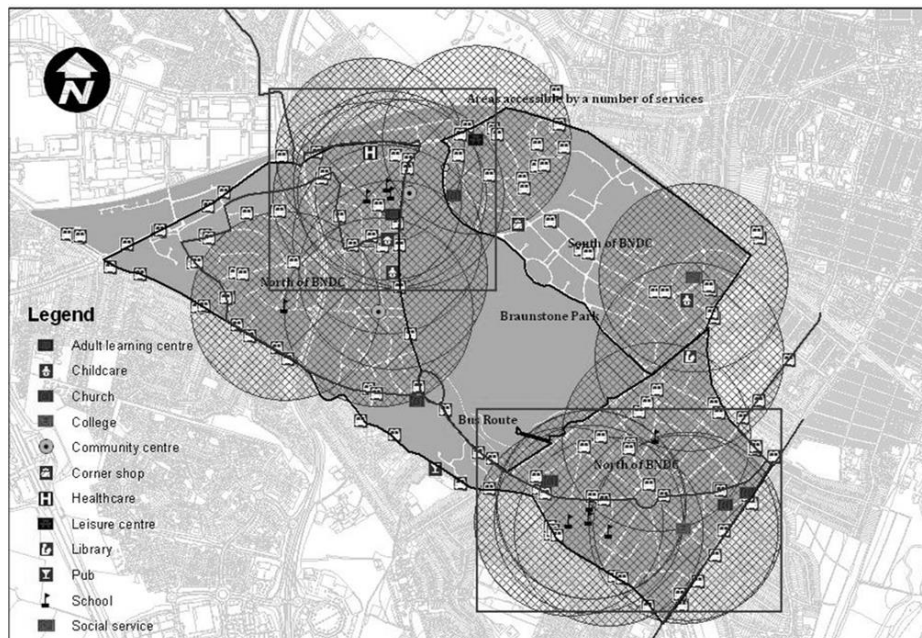


Figure 4: Relative Accessibility to the Services by Walking (Considering 400m Catchment Area for Each of the Services) in the BNDC Area.

4.5. IMPROVING PERCEPTION OF NEIGHBOURHOOD

The sense of belonging in the Braunstone neighbourhood had improved with a perceived higher quality of the physical environment compared to similar data from the MORI survey in 2008, but remains a problem. This is a positive sign in tackling the associated stigma which may prevent people from establishing long term residency in the area. Areas in which people choose to stay longer have distinctive identities which is a good indicator of the potential to develop social capital. However, ‘less pride’ to be a resident of Brausntone points to underlying issues associated with ‘stigma’, rather than the change of

the physical appearance of the area (refer Figure 5). The respondents held positive perceptions of the walking environment when views, landscaping, shade trees and design of the streets were considered of higher quality. The sense of pride in where one lives that creates feelings of belonging is an important contributor to social capital. This also influences the individuals' decision on local participation and networking. Therefore, the stigma associated with being a resident of Braunstone needs careful consideration if the estate is to integrate with Leicester City for longer term sustainability. Postive perceptions of the environments were expressed in statements such as "Brite centre is really good; We got a café there; Council offices are there; We spend hours there and have a laugh; Braunstone Leisure Centre, I've been there but don't use it; I've seen Braunstone improve; lot of facilities and even in winter they are used; Brite centre is far better than other libraries; The staff is good to anybody".

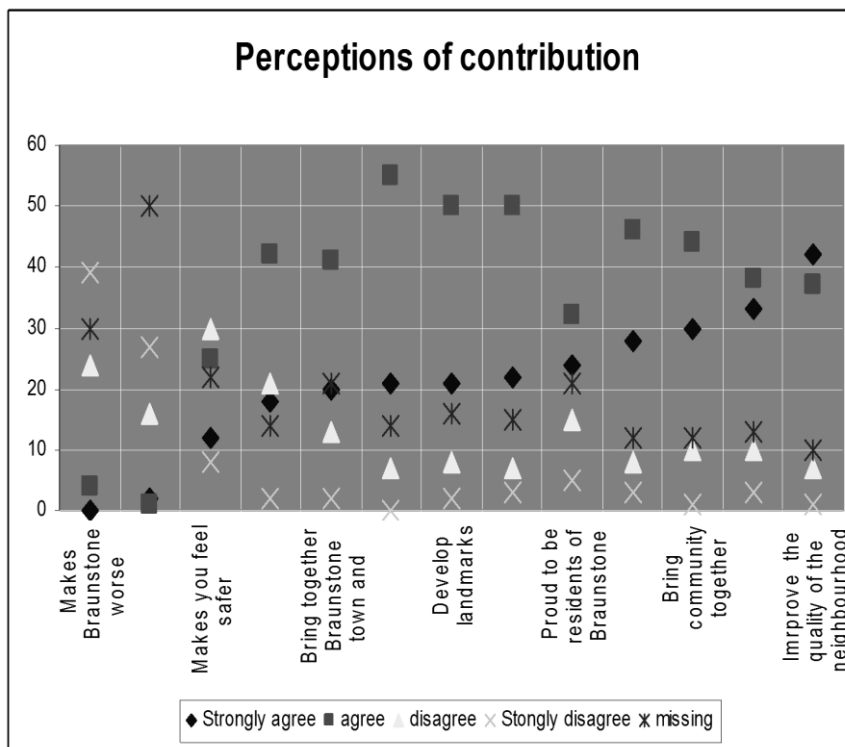


Figure 5: Perceptions of the Contribution of the Improved Physical Environment

5. CONCLUSIONS

Within the scope of the study we could not explore all themes and attributes that were proposed by SUE-MOT. However, it was clear that the walking environment, facilities and buildings, had provided opportunity for social interactions encouraging people to reside in Braunstone in the longer term. Several indicators and proxies used suggested that facilities and buildings, such as the Brite Centre and Braunstone Leisure Centre, have contributed to a varying degree of social interaction, mediating for a growth of social capital as expected. The new facilities have contributed to bringing more types of users into close proximity for the people of Braunstone. However, a more fine-tuned response addressing the specific needs of diverse groups such as the range of lifestyles and needs across the ages would increase levels of participation.

The importance of improving connections between the neighbourhoods and beyond was clear to retain people for longer term residency to develop social capital that improves well-being. The social division between the two communities living in the North and South was seen as a major problem for the area. Poor accessibility to services by walking and by public transport and the absence of a "Central Hub"/"Cultural Heart" together with socio-economic circumstances, may have contributed to the lack of social solidarity of the area as a whole. This need was clearly demonstrated by a respondent as "I use the facilities when I buy a one day bus ticket paying two pounds. It is not possible to get to these places otherwise."

Although the level of crime has significantly reduced in recent years, concerns about safety remain. The new facilities have not affected the pressing issue of safety in the eyes of the respondents. The nature of activities housed in buildings may prevent ‘active frontages’ for natural surveillance, as recommended by urban design guidance, but this is an important consideration in contexts such as Braunstone. In fact, lack of security was the perceived key barrier that discourages walking. These concerns may also contribute to poorer health outcomes, such as fear or anxiety (Huxley and Rogers, 2001) which in return negatively impact people’s walking behaviour (Warwickshire County Council, 2006). Evidence suggests that the presence of over-grown trees, litter, graffiti, isolated environments and congregation of young people on streets can contribute to the fear of crime (Rodgers, 2009).

Overall evidence suggests that regeneration initiatives which tackled the underlying causes of the problems in Braunstone have helped to improve the quality of life in the area. Improvements to the physical environment has had a positive effect on social capital by providing opportunity for interaction and incentives to establish longer term residency in the area. As social capital theory suggests, the nature of social capital proves to be highly context specific and therefore physical attributes or urban design has to be holistically viewed. For example, the case study looked at the use of facilities and walkability that relates to movement structure, mixed use and local facilities. However, these issues were clearly connected to attributes that deal with diversity. This reiterates the need for a holistic view in sustainable regeneration because a ‘one size fits all’ approach cannot be prescribed. A bottom up approach from which solutions emerge through needs of the communities would still be the answer.

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