GEOG309
Research Methods in Geography

Public Life in the Central City

Written by:
Emma Hawke, Olivia Baker, Keshav Chapagain, Alex Hilliard

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Executive Summary

"To what extent has the way people are using public spaces in the Christchurch central city changed compared to pre-earthquakes?"

This research was conducted for the Christchurch City Council to analyse how people use public spaces in the central city. We measured this through the use of an observational quantitative survey, of ten public spaces throughout the Christchurch Central City. These sites were previously surveyed by Jan Gehl in 2009, looking at how the public uses spaces in Christchurch. This survey was the backbone for our research to compare pre-earthquake Christchurch to post-earthquakes, with the reason to create a baseline for future research for the Christchurch City Council. The study was conducted from the 22nd August - 17th September, during the beginning of Spring.

The most used public space was the Re:Start Mall, as this had the highest concentration of food outlets, shopping areas and seating options for the general public. On the contrary, there were few people in Latimer Square doing stationary activities as it was being used mainly as a thoroughfare. Typically, where there were more cafes, shops, and areas to socialise more people were found.

Future research could use more scientific measures such as the use of drones, time lapse photography, and interviews. There could be the inclusion of more areas such as the Bridge of Remembrance, Margaret Mahy playground, and other Gapfiller Sites to allow for a much broader view of public life in the Christchurch City Centre. Concluding our research we have been able to discuss how different individuals use these public spaces. Through this research we have constructed a framework and baseline which allows for further study around public space and usage in the Christchurch Central City.

Introduction

The research that we have conducted has been on the behalf of the Christchurch City Council, and for this we analysed and studied how people interact and use public spaces within the Christchurch Central City. These sites were previously studied by Jan Gehl (2010), whose data provided a backbone for our study. The report below describes our study so far, our results, observations, issues, and recommendations.

Before conducting our investigation our group analysed a series of academic sources, to help with our investigation. This proved beneficial, as we were able to view Christchurch from a different and analytical perspective.

"Public Space Public Life" was a study conducted in 2009 by Gehl Architects, whose purpose was to analyse how people interacted with the environment in Central City Christchurch, the research was commissioned by the Christchurch City Council. Gehl's report begins with a discussion on areas where Christchurch can make improvements in order to create a more interesting and vibrant city. The report also discusses how traffic primarily dominates the Central City, and that it can be an unpleasant experience for people walking or cycling. There is also a lack of open spaces, and green networks for walking and cycling through the Central City. However this has begun to change following the earthquakes and the rebuild. Gehl conducted his research through an observational study, thoroughly analysing the usage of public spaces between the hours of 10am - 8pm, for 10 minutes per hour. Gehl Architects also makes comparisons between European cities, and how Christchurch should attempt to aspire towards the European city environments, such as Copenhagen. These comparisons discuss how the city

can change and develop but each city is unique with residents potentially reacting differently to different proposals and city spaces.

An article composed by Wong and Liu (2016), discuss the term 'city image building' with regard to developmental urbanism in transitional China, with an economic point of view. This view sheds light on city imaging and what can be done to give a changing city such as Christchurch the best image. Though we support a more social basis of a city image where residential usage can indicate what individuals think of areas within a city, as more usage correlates to a more enjoyable environment. This ties in with the economic point of view of this article, as the more people brought into spaces in the central city, the better business and economic growth there will be.

According to Beck (2009) a higher quality and well-designed public space are vital for improving the wellbeing of individuals and groups, and contributes to positive social connectedness, economic growth, and an increase in the environmental values of a city. It also indicates that higher quality public spaces are associated with greater benefits to the quality of life, such as feeling healthy and safe in a city. The article also mentions that poorly managed public spaces have negative impacts to the surrounding areas and contribute to vandalism, graffiti and anti-social behaviour. It also suggests that greater understanding of the links between the quality of public spaces and public life is essential to justify and encourage greater investment in improving the public spaces to a higher quality. It is understandable that higher quality public spaces are associated with a positive environment, and lower quality public space is associated with vandalism. This is visible and occurs in different areas in Christchurch such as Latimer Square with litter, as well as around New Zealand.

Jan Gehl and Birgitte Svarre (2013) discussed how to conduct a study where individuals use areas as the key focus. Through this literature the use of an observational study was recommended to allow for a quantitative measure of how the general public uses council funded public areas. Jan Gehl and Birgitte Svarre define a public space as everything that can be considered part of the built environment, though for our research the Christchurch City Council defined the set spaces to survey. Through these studies we were able to collect data which can then be compared to pre-event, in this case before the 2011 earthquakes. This data also allows for continued long term data collection where the study can be repeated and compared to our research as the baseline. This is the main reason why the Christchurch City Council wanted an observational study conducted, in order to find how individuals interact with public spaces post-earthquake, and why some areas are more successful than others with a qualitative measure.

"Cities for people" (2010) is another source used prior to undertaking research on behalf of the Christchurch City Council. The book written by Jan Gehl describes his beliefs towards the ways in which cities should be constructed and developed.

He introduces us to the idea of *Modernism* and how it is being applied to the current development of cities. He considers it a "disappointment" at how cities once constructed based on tradition and knowledge has now been constructed by individuals titled "city planners" and "professionals". Through *Modernism* Gehl argues that pedestrians have been disregarded, restricted, and no longer have many “social spaces” to use. Gehls perspective on the construction of cities proved useful for our group, as it helped for us to gain a greater understanding of the current city design for Christchurch, and how we could adjust the city design to improve the usage of public spaces.

Methods

Our method of investigation was to conduct a cross-sectional quantitative casual observational study. We were required by the Christchurch City Council to analyse public behaviours within ten different public sites located throughout the Christchurch Central City. These areas included the Cathedral Square, Latimer Square, Arts Gallery, The Commons, New Regent Street, Worcester Boulevard, Victoria Street, Bus Exchange, Re:Start Mall and the Terrace.

No direct contact was made with the general public during this investigation, with no personal information on the individuals collected, as the data was purely observational. For safety purposes all research was conducted in groups of two.

We conducted our investigation between the 22nd of August and the 17th of September. Data was collected twice on Monday, Wednesday, Friday, and Saturday. Data in each site was collected for 20 minutes between the hours of 10am - 4pm.

Data was collected through the use of a survey sheet and map (Appendix I, see Figures 5 and 6), provided to us by the Christchurch City Council. This survey sheet is similar to one researched and created by a former GEOG402 study group, who conducted an investigation into the best way to measure public space usage for the council, (Buick, J. Fong, S. Meyer, T, 2016).

Through the usage of a checkbox system, quantitative data was collected on each individual within each public space. Data included the individual's gender, approximate age, a description on whether they were sitting or standing, and the general activity which they were doing. A map was also used to document the location of an individual within the space (example in Appendix, Figure 7).

After the data was collected, statistical processing was conducted through the use of Microsoft Excel. This allowed for us to obtain a general overview of the ways in which public spaces were used within the Christchurch Central City. Our original intention was to use Geographic Information Science to allow for a visual representation reflecting the location of individuals within the sites, however due to time constraints we were unable to proceed with this methodology.

Our primary aim was to find who is using the space, and how is it being used. For who is using the space, we analysed age, demographic and gender of an individual. Our goal was to find the percentage of male and female and the counts of different age groups in every space. We also wanted to know how spaces are being used and what activities can be seen the most, such as socialising, observing, eating, on mobile, taking photos.

Results and Discussion

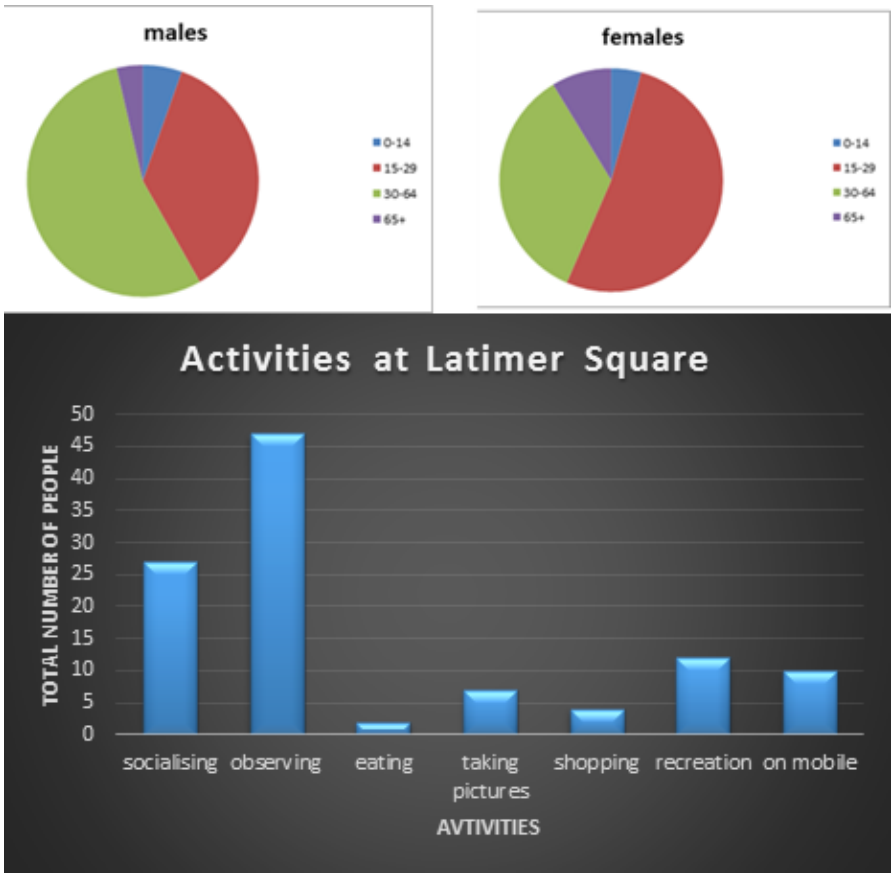

Figure 1: Results for Latimer Square.

The results for Latimer Square (shown in Figure 1), were that there was a total of 78 individuals recorded using this space, though only 13 of those individuals were stationary and sitting in the space rather than moving through the area. 70% of the people using the area were males. This could correlate to how unsafe females feel in the space, this is assumed based on Gehl and Svarre (2013), finding similar results for Bryant Park in New York City, and correlating based on their results that usage by females reflects safety of an area.

Jan Gehl's study in Christchurch described Latimer Square as a possible urban playground if more playing facilities were installed for all ages, during his study he recorded 119 individuals using the space. Though his study was conducted during summer, and appears to not

include walking through the area while our study did include transit activity such as cycling and walking through the space.

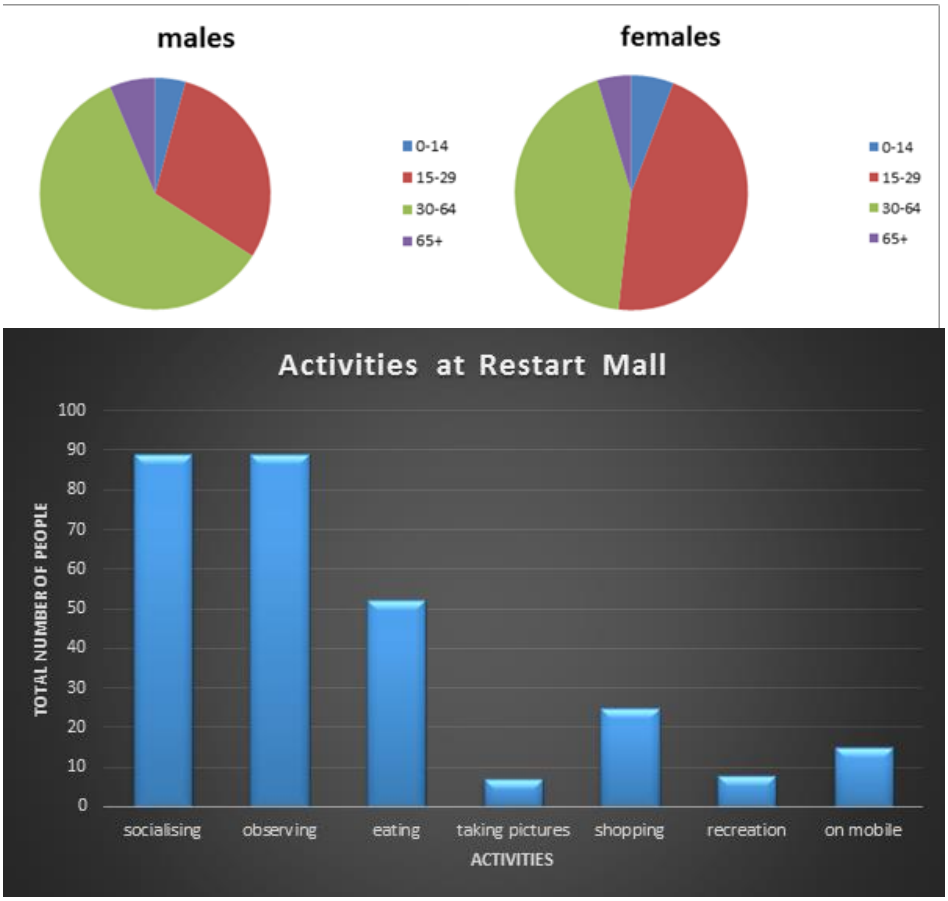

Figure 2: Results of Re:Start Mall

The results for Re:Start Mall (shown in Figure 2) reflects how busy this site was compared to the other 9 sites. With 179 individuals using this space, which included both the Re:Start Mall and Cashel street from Ballantynes down to the Bridge of Remembrance, this was the busiest site we surveyed. Gehl recorded 399 individuals in this area during his study, with the majority of people sitting and standing in the area, while our results show only 46.93% of people sitting in the area, again this is likely correlated to the time of year and weather determining people from staying and sitting in the area.

This site is very bright and vibrant as well as still being a key focus for tourism, food and shopping. There was almost a 50% split in the gender (53% male, 47% female) which reflects an enjoyable environment for both genders and with the age spread reflecting more young children, this shows that families can use this environment to enjoy, especially during the weekend.

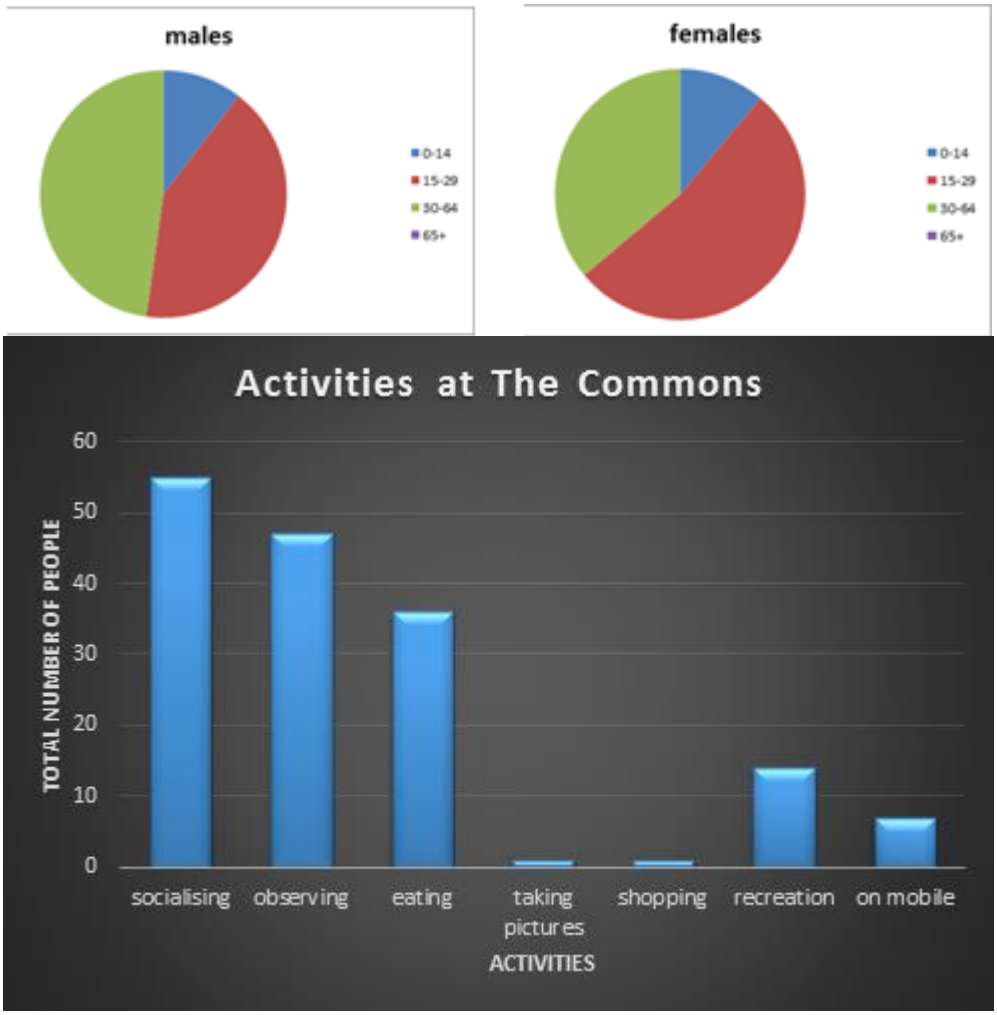

Figure 3: Results of The Commons

The results for The Commons site were slightly surprising as this was the first time the site had been surveyed, as it was not created prior to the earthquakes. There were very few people in the Commons as most people recorded were travelling through the

area as a thoroughfare from Victoria Street to Victoria Square. There were no people over the age of 65 recorded using this site, this may be due to the unsheltered nature of the site making it very susceptible to harsh weather conditions. This area was most popular with males, though we recorded large amounts of construction workers on breaks in this space which may have affected the results. 35% of people using the space were eating due to the small collection of food trucks in the location.

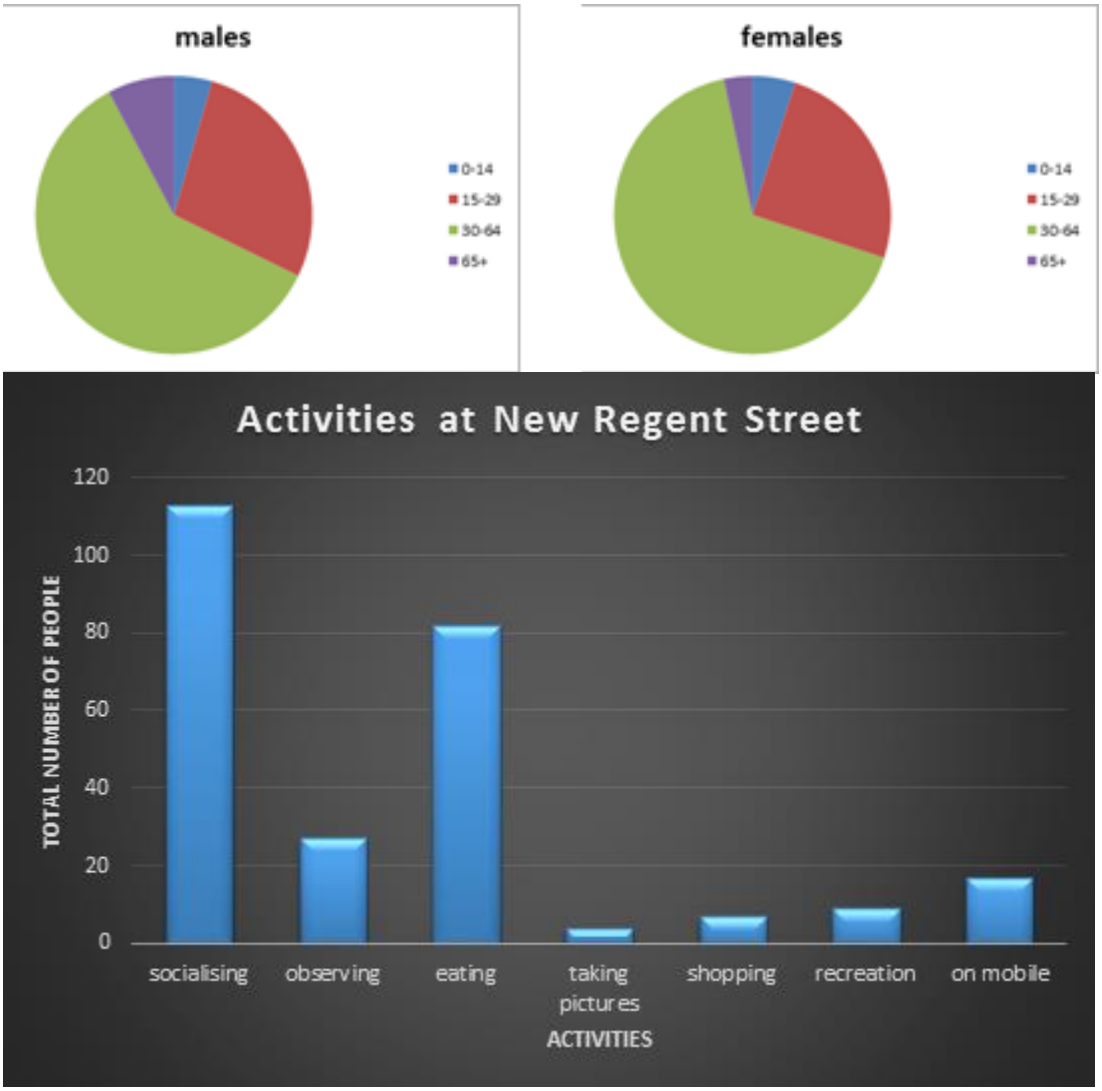

Figure 4: Results for New Regent Street.

Originally we were not sure as to what the results for New Regent Street would disclose, however it has since turned out to be one of the most popular sites in this study. This could be due to the amount of cafes and seating concentrated within the small area. We discovered that after 2pm the area was casted in shade, which decreased the use by the general public. The majority of the people found within this space were also clustered around the small cafes scattered along the street. Overall, there were 150 people accounted for in this survey spot, and of that 93 people were observed sitting, eating and socialising. On weekdays our data was impacted by the noticeable amount of construction workers who would use this space to consume their lunch, thus 60% of the people seen in New Regent Street were male. Another factor that lured people into the space was that the tram goes through this site, and as such tourists were quite commonly seen in the survey area. When Gehl studied this space in 2009 he recorded 115 people. This means that the number of people using this space post-earthquake has risen substantially, possibly due to lack of other facilities in which to relax within the Christchurch Central City.

Discussion

Through this investigation there were both strengths and weaknesses in the collection of our data. An advantage of our method of research was that our group was not required to meet ethical clearance requirements, meaning that data collection was simpler and easier to collect. We were also able to protect the identities of the individuals assessed during the study. Another strength of our research is that our group was able to observe an individual's behaviour without their knowledge. This allowed for our group to analyse people's natural interactions with the social environment, as individuals who know they are being studied are more likely to display false behaviour.

Our study was conducted during a time where temporary contractors were prominent within the Christchurch Central City. This is related to the rebuild, and is not expected change anytime soon. This may however have an impact on how the general public interact with the City environment and future longitudinal research.

At the beginning and throughout, our study there was a temporary phenomenon in which location based augmented reality games (PokemonGo) led to an unexpected rise in the numbers of people interacting with the public spaces.

Our method of research does have weaknesses and recognised issues. Firstly our research was conducted based solely on investigation, meaning that assumptions needed to be made towards an individual's age. It can be argued that the age ranges for our investigation were greatly overestimated or underestimated, as a newborn infant is placed in the same category as a 14 year old child.

There has also been confusion towards the definitions of certain criteria on the survey sheet. For example the "exposed" and "sheltered" checkboxes have had different meanings for different members of the research group.

There has also been difficulty in the organisation of suitable times for the collection of data. This is because all group members are full time students, have extracurricular activities, and paid work. This clashes with our research days, and for health and safety purposes we are required to work in groups of two people.

Through our investigation we were made aware and observed other locations where people were interacting with the City environment. These locations include the Bridge of Remembrance, and the green space opposite The Terrace steps. This is something which is worth considering for any similar research projects in the future.

If we were to use a more scientific approach towards the collection of data, we would require the possible consideration of consent forms, ethical clearance, filming equipment, analysing CCTV camera footage, and the usage of questionnaires, all of which were impractical for this currently due to funding.

Our study includes some biases such as the time of day as we were only available and recommended to survey during 10am-4pm, as well as there being less people during other hours of the day as night life is still growing following the earthquakes.

Sample bias also impacted on our results as each of us as surveyors may have had a bias to only include certain individuals and to ignore other individuals.

Observational bias as the people we were observing and surveying could have been aware of our presence and changed their behaviour based on us being visible in the area. This could make the results less authentic.

Conclusions

Overall our group found that some areas within the Christchurch Central city had more usage than others, with the most active being Re:Start Mall, while the lowest and least active was Latimer Square. For future research there could possibly be the inclusion of other new sites such as other used transitional projects. To increase public usage there may need to be an increase in events in the Central City and potentially more shelter from weather conditions within many of the sites. These recommendations will help bring more public life into the city and could create more economic growth as the city rebuilds. Although we have recognised some shortcomings with the data collected, our group have been able to establish a basic foundation to allow for further research to be conducted by the Christchurch City Council in future years.

Acknowledgements

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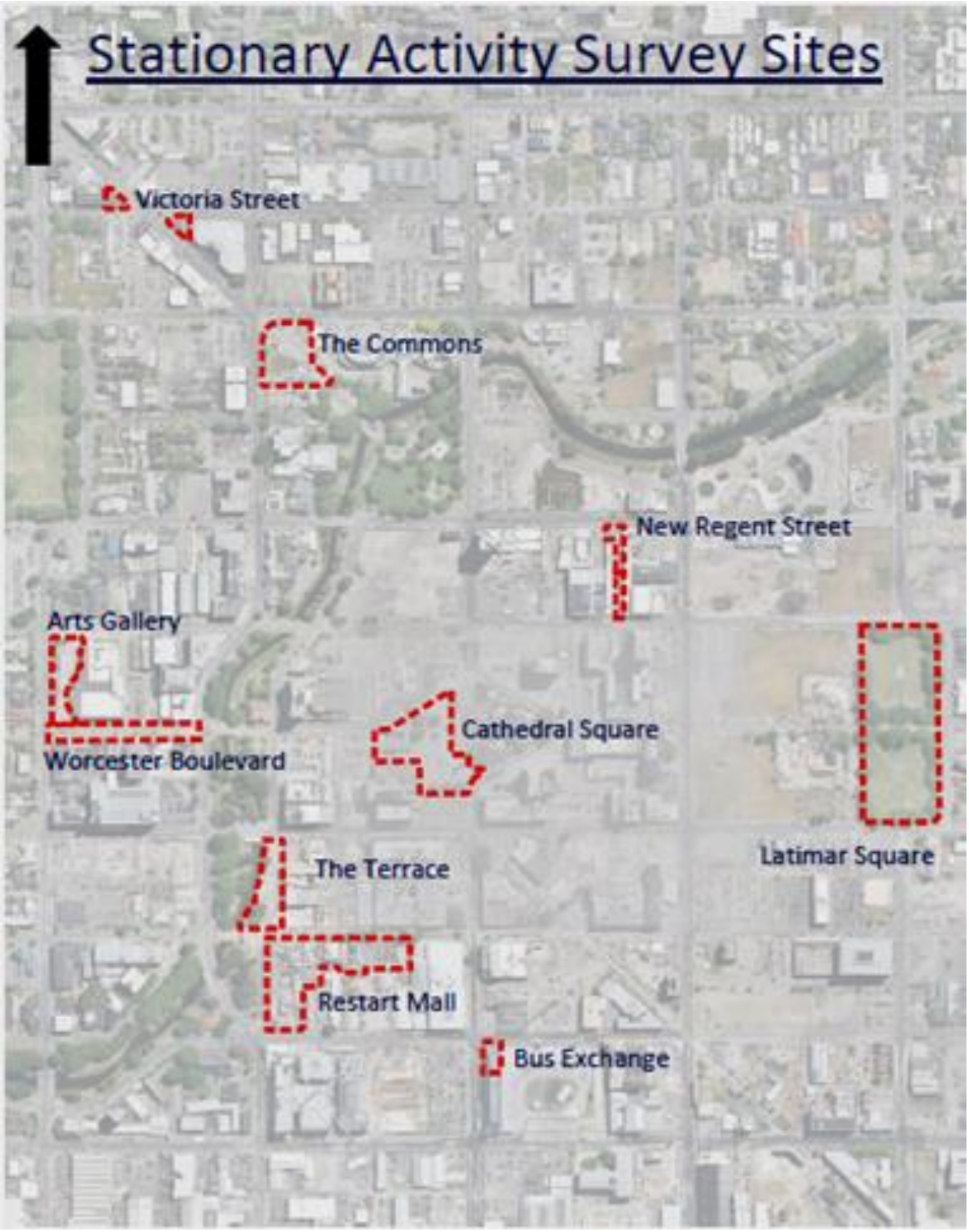
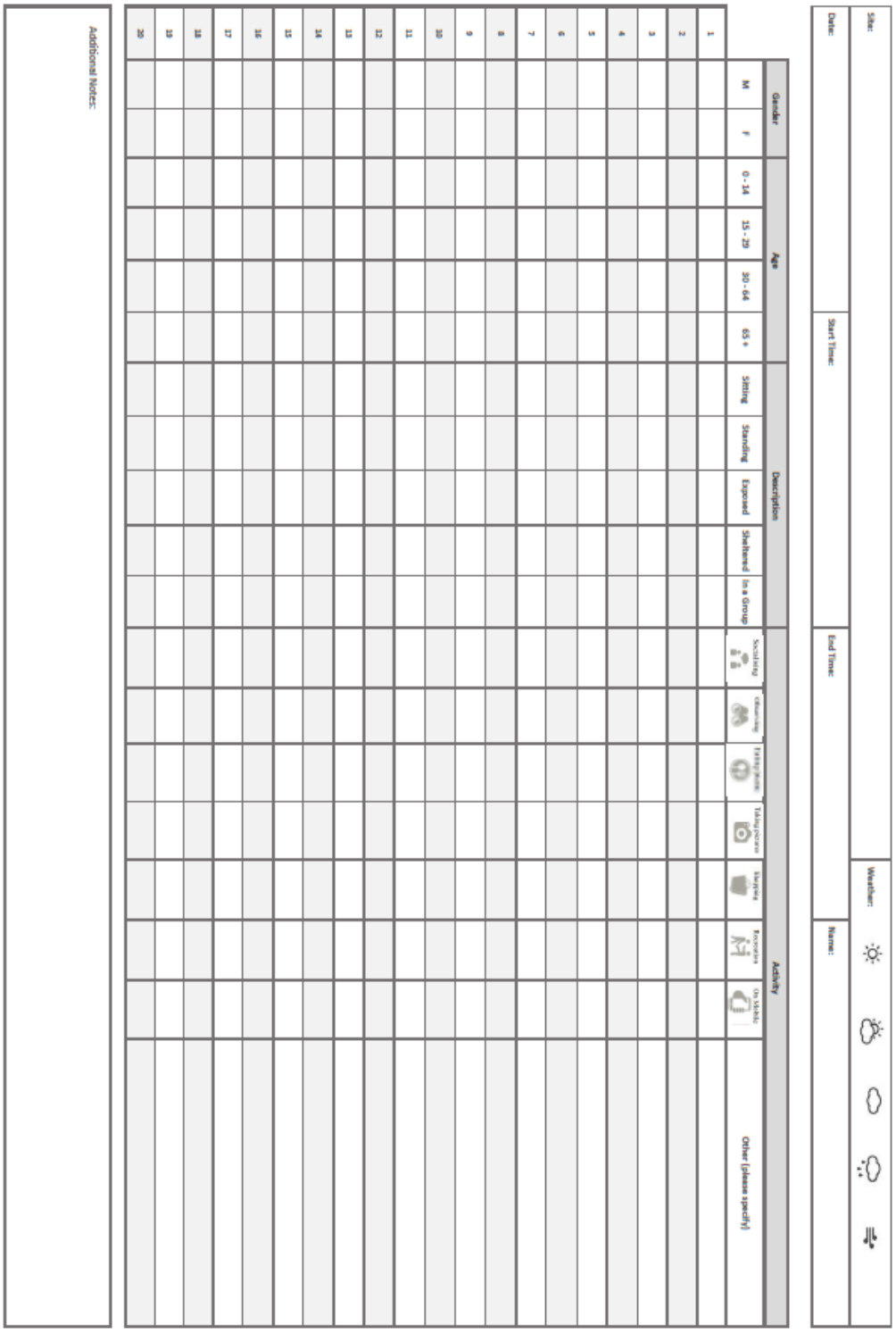
Appendix

The Ten selected sites for surveying. Figure 5.



Survey Sheet: *Figure 6.*



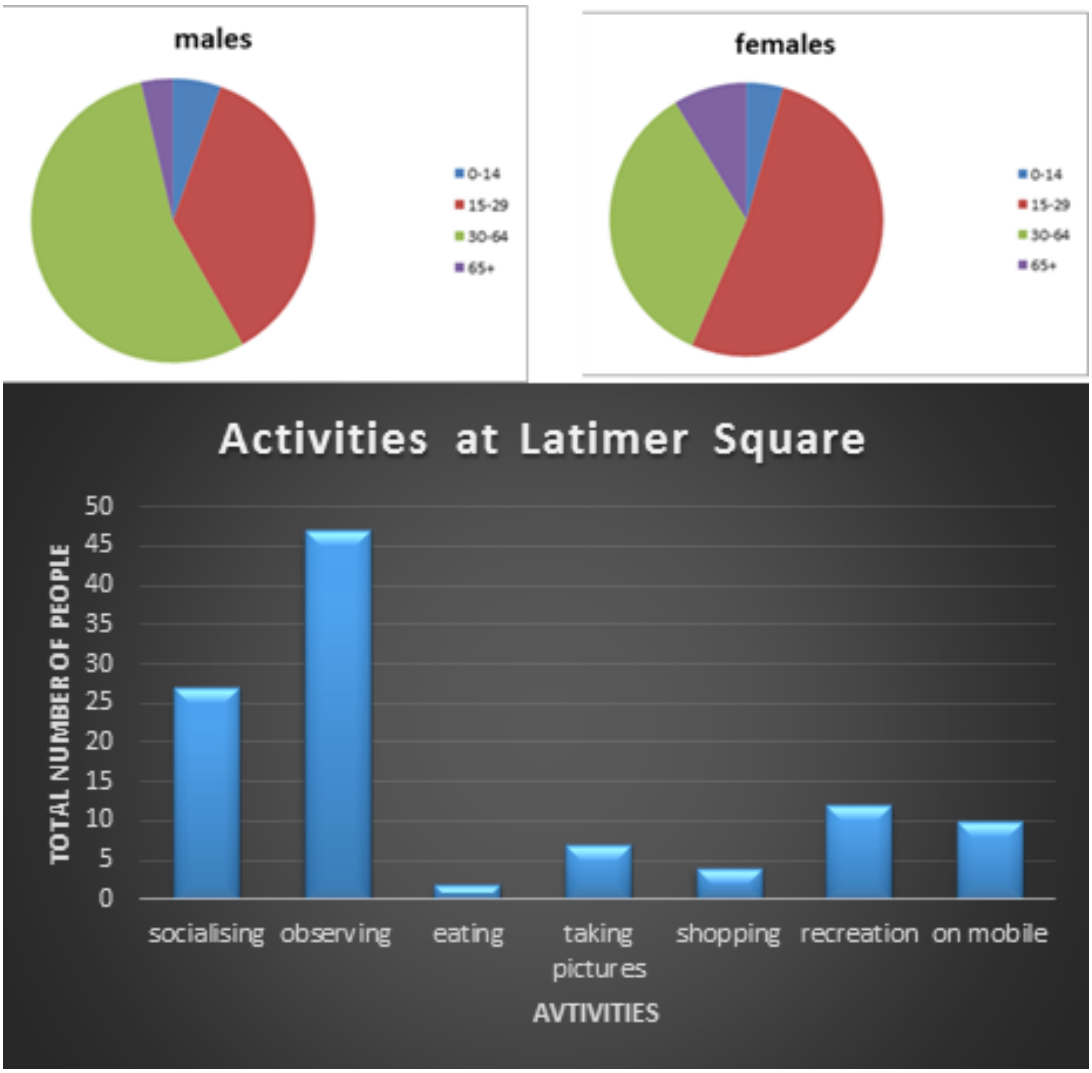

males
0-14
15-29
30-64
65+
females
0-14
15-29
30-64
65+
Activities at Latimer Square
TOTAL NUMBER OF PEOPLE
50
45
40
35
30
25
20
15
10
5
0
socialising
observing
eating
taking pictures
shopping
recreation
on mobile
AVTIVITIES

Figure 1

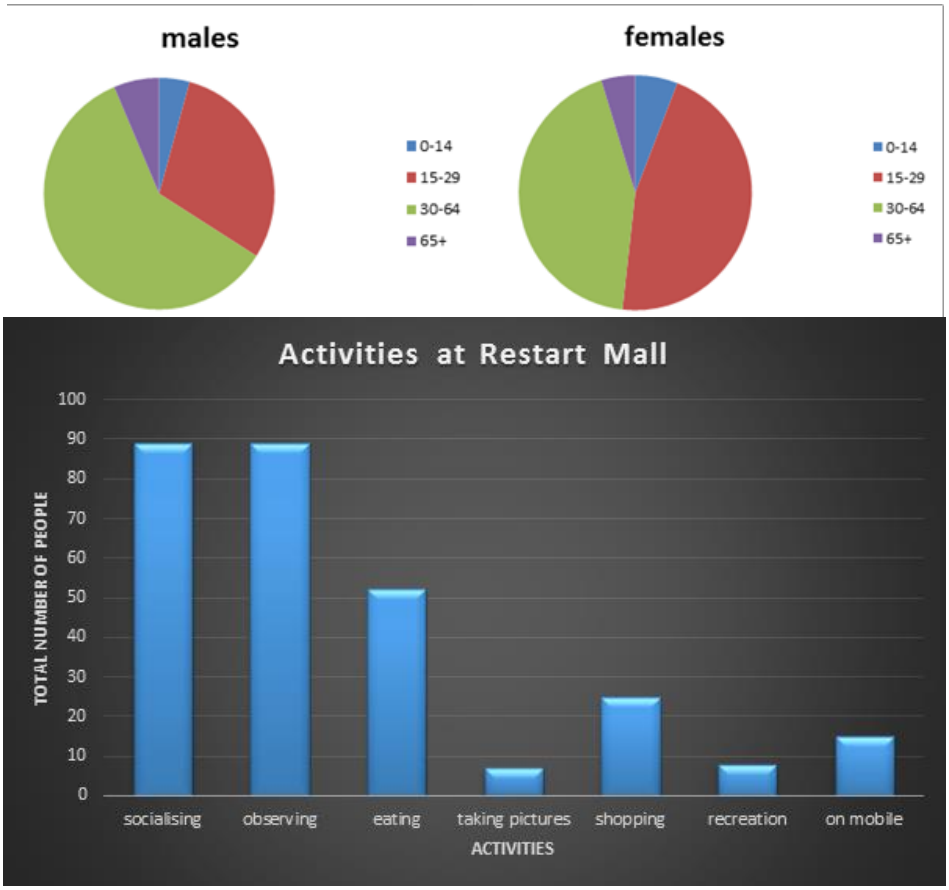

males
0-14
15-29
30-64
65+
females
0-14
15-29
30-64
65+
Activities at Restart Mall
TOTAL NUMBER OF PEOPLE
100
90
80
70
60
50
40
30
20
10
0
socialising
observing
eating
taking pictures
shopping
recreation
on mobile
ACTIVITIES

Figure 2

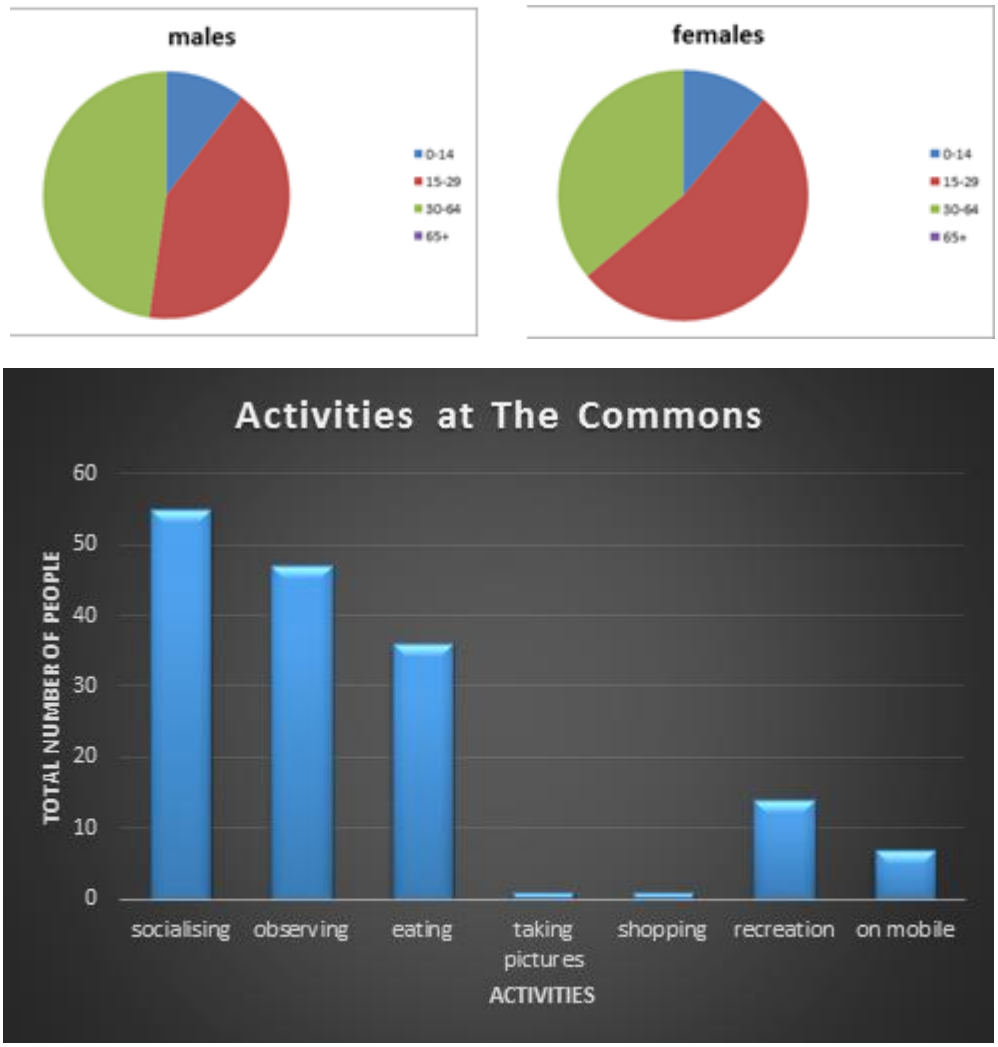

males
0-14
15-29
30-64
65+
females
0-14
15-29
30-64
65+
Activities at The Commons
TOTAL NUMBER OF PEOPLE
60
50
40
30
20
10
0
socialising
observing
eating
taking pictures
shopping
recreation
on mobile
ACTIVITIES

Figure 3

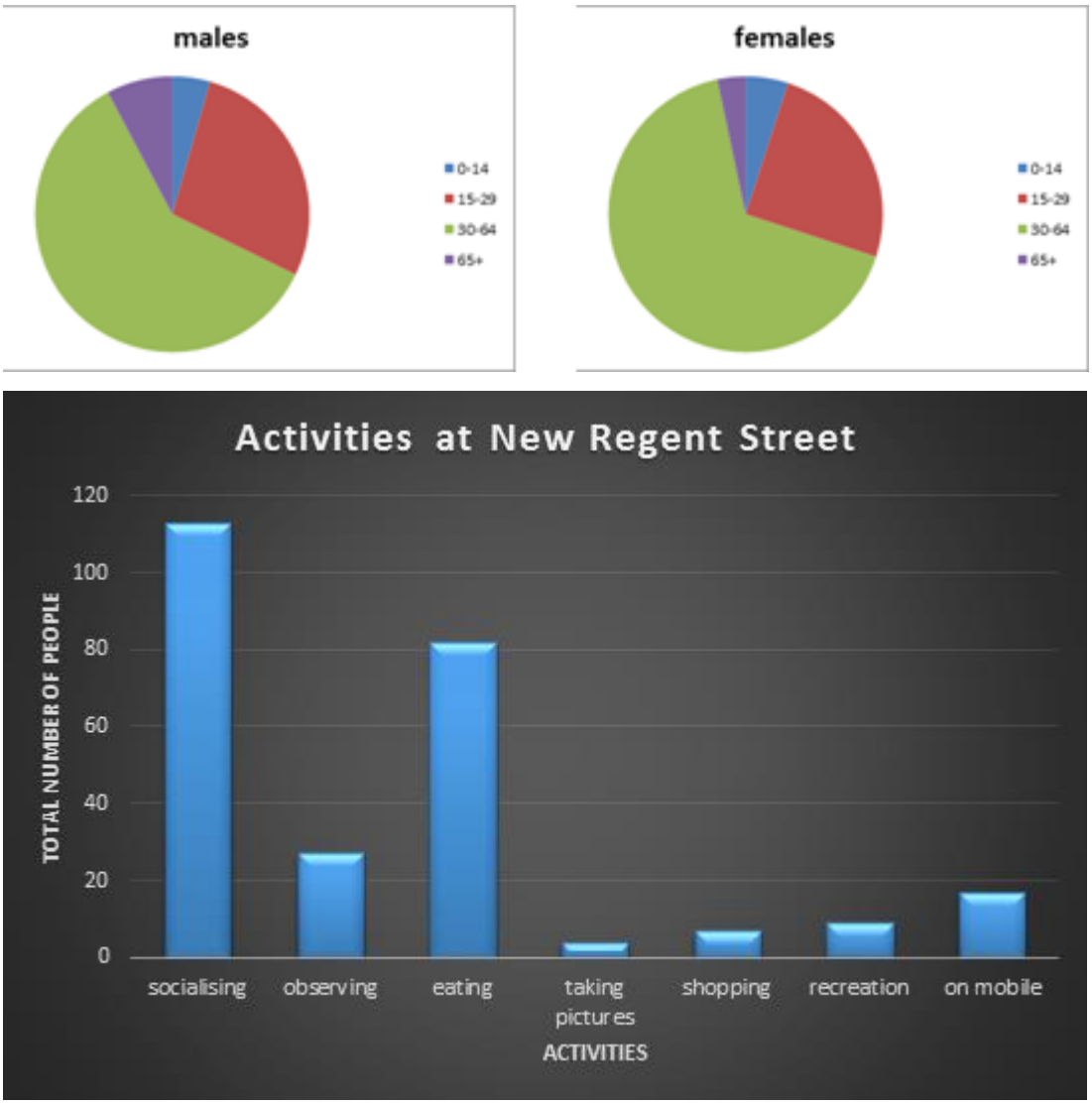
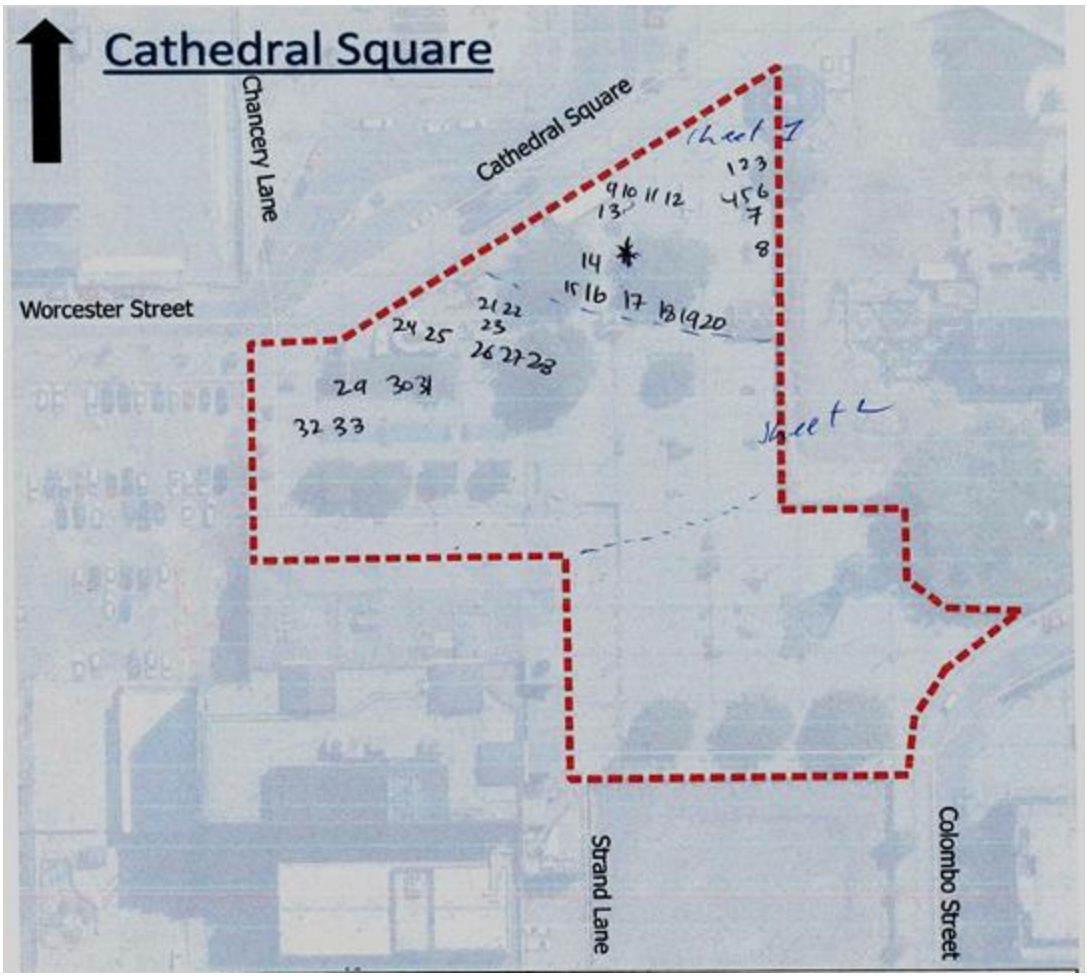

males
0-14
15-29
30-64
65+
females
0-14
15-29
30-64
65+
Activities at New Regent Street
TOTAL NUMBER OF PEOPLE
120
100
80
60
40
20
0
socialising
observing
eating
taking pictures
shopping
recreation
on mobile
ACTIVITIES

Figure 4



Site individual's spatial location example Figure 7