2056 ENV: Urban Analysis

Activity 7 : Griffith University Greenspace Use

Jessica Strickland

Part 1

1a. Briefly describe the time and date and venue / setting of where you conducted the surveys. Note the temperature, noise conditions, windiness etc of your surroundings as these 'confounding factors' could influence your results.

I conducted the questionnaire survey on Tuesday, 8th of May, between 11:30am and 11:50am in between G03 and G27, on the footpath that leads into the university from the bus stop. It was a fine, sunny day; the first day of university after a long weekend, but it didn't seem very busy with students. There was some traffic noise as motorbikes and vehicles passed by on the nearby roads.

1b. Now reflect on the survey experience. Describe what it was like to be involved What are the strengths and weaknesses of this type of research? Did you experience any problems in conducting or participating in the survey exercise? If so, describe them here.

Questionnaire surveying is a research tool that can provide useful data relevant to planners, including 'information about the characteristics, behaviours and attitudes of a population' (McLafferty 2010, p. 77). This type of research has been used successfully in behavioural geography to examine a range of topics, from peri-urban needle exchange to 'people's environmental perceptions, travel behaviours and consumer choices' (Knittel, Wren & Gore 2010, pp. 1-7; Rushton 1969 & Gould & White 1974, in McLafferty 2010, p. 77). However, Bruce and Chambers (2002, pp. 1049-51) warn against the consequences of poor survey design. They state that, without 'proper planning, preparation and attention to detail,' the validity and accuracy of the survey results are compromised (Bruce & Chambers 2002, p. 1049).

McLafferty (2010, pp. 78-82) also emphasises the importance of good survey design in acquiring accurate, useful data. She outlines the importance of using a variety of question types depending on the information that the question is asking for (McLafferty 2012, p. 80-1). For example, within the campus greenspace questionnaire, an open-ended question sought to assess the proportions of participants in different fields of study. However, it was apparent that the question was misunderstood by many individuals, as some answered their faculty and others their specific major. The choice to instead utilise a checklist for this question would have provided more specific answers that could be used to effectively analyse the proportions of participants in different fields of study.

I found that there are many benefits associated with questionnaire surveys including 'the advantage of being cost-effective and easy to administer to large-scale populations' (Bruce & Chamber 2002, p. 1049). However survey questionnaires often receive heavy criticism as they 'fail to pay attention to reliability and validity' (Eaden, Mayberry & Mayberry 1999, p. 397). It is therefore crucial to acknowledge that the credibility of data gained through questionnaire surveys is limited to the honesty and accuracy of the survey participants (Eaden, Mayberry & Mayberry 1999, p. 397). However, McLafferty (2010, p. 78-82) outlines ways in which the design of questionnaires can be used to discourage participants from providing dishonest or inaccurate information. For example, fixed-response questions within surveys should have a 'don't know' or 'other' option so as not to force participants to select an option that may not apply to them (McLafferty 2010, p. 80). This technique was utilised for the campus greenspace questionnaire, where many of the fixed-response questions had an 'other' option. Additionally, McLafferty (2010, pp. 78-82) notes that participants are likely to inaccurately answer questions about sensitive topics (such as age or income) when a

numerical response is required. In order to ensure information from the campus greenspace questionnaire was as accurate as possible, a categorical response (i.e. 17-21 years old) could have been used for the question asking participants' age.

In general I found the questionnaire survey to be an effective means of gaining a broad understanding of general views and attitudes towards campus greenspace in the limited time available. However, McLafferty (2010, p. 77) points out that 'questionnaire survey research is just one method for collecting information about people or institutions' and more in-depth research requires the combination of a variety of research tools. For this reason I chose to refer to the discussion of a recent focus group on campus greenspace. Analysis of the discussion showed many similarities between common attitudes highlighted in the focus group and through the survey data. For example, a prominent topic that was addressed during the focus group was the need for more benches in campus greenspace (Focus Group 2 2012, pp. 1-4). The campus greenspace survey data mirrored this view, as 58% of the survey population stated that it was an issue negatively affecting their experience of campus greenspace. This shows how questionnaires can be used as a tool to gain a better understanding of common attitudes within a population. However, the issue regarding the lack of adequate disabled access to campus greenspace was very prominent within the focus group, but wasn't highlighted by the campus greenspace survey (Focus Group 2 2012, pp. 1-4). This emphasises the possible shortcomings of questionnaires as a research method and outlines the importance of integrating a variety of research tools (such as qualitative surveys, focus groups, participant observation and in-depth interviews) to better analyse important attitudes and underlying issues.

1c. Describe the characteristics of the survey population. (i) What percentage was male vs. female? (ii) What was the age range of respondents? (iii) What is the median number of years that respondents had been on campus? (iv) What were the most abundant and least abundant 'majors' or 'faculties' represented among respondents? (v) Do you think that the characteristics of the survey population affected the results of the survey? Why, why not?

In total 196 individuals were surveyed at various locations around the Griffith University campus between Friday 4th and Tuesday 8th of May. Of the people surveyed, 50% were male and 50% were female (Figure 1), between the ages of 17 and 44 years old. The largest proportion of people surveyed were students in the age group of 17 to 23 (79%) and this can be seen in figure 2.

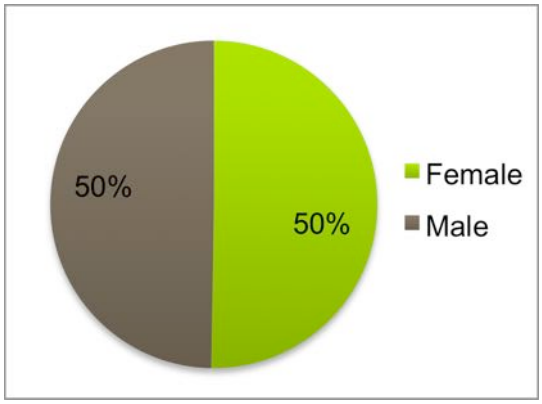

Figure 1: Proportion of males and females surveyed (Source: Jessica Strickland).

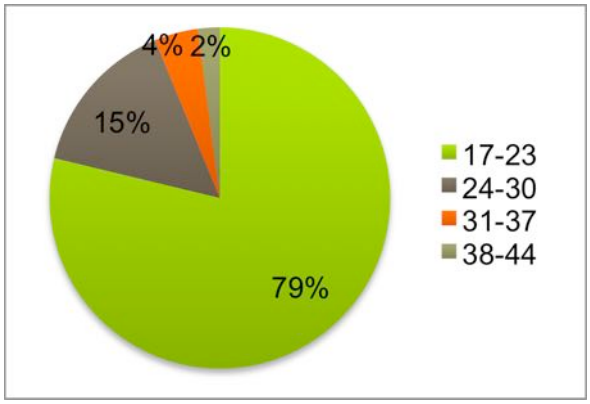

Figure 2: Proportion of people from different age groups surveyed (Source: Jessica Strickland).

Of the people surveyed, the majority were in their first three years of study: 31% were first year students, 29% were second year students, and 27% were third year students (Figure 3). The remaining 13% were either in their fourth year or were undergoing further study, having already completed an undergraduate degree (Figure 3). It is important to note the year of study for different members of the survey population as it can be directly linked to an individual's familiarity with the campus greenspace as well as their feelings of 'belonging' or 'ownership' towards the campus. For example, 31% of the survey population are first year students and it is probable that they are not entirely familiar with greenspace on campus, which likely affected their responses.

The various areas of study being undertaken by those surveyed can be categorised into one of eight main fields (Figure 4), the most popular of which was 'business', being studied by 22% of the survey population, which includes students studying all forms of business, economics, tourism and event management. The second most common field of study was 'health', which made up 21% of the survey population and which includes students from dental, medicine, nursing, pharmacy and other health related studies. The other three fields of study that were well represented within the survey population were 'environment', which includes planners, architects and environmental scientists; 'other sciences', which includes scientific fields not directly related to the environment like sports science, and; engineering (Figure 4). The fields of study that were least prominent amongst those surveyed

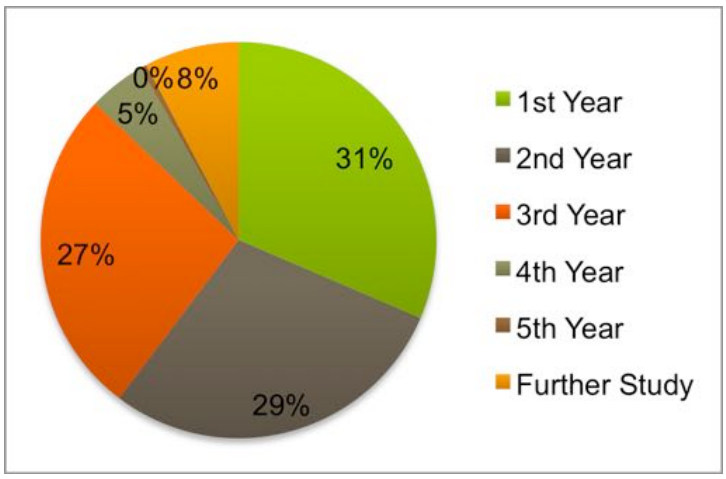

Figure 3: Proportions of people surveyed in different stages of study (Source: Jessica Strickland).

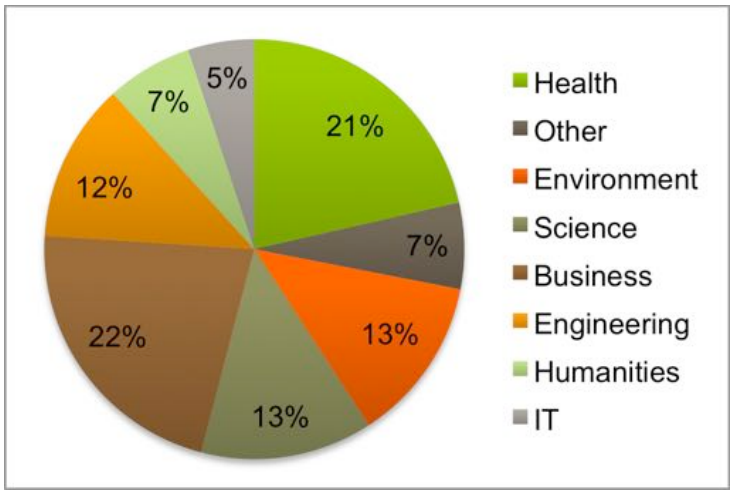

Figure 4: Proportions of students in different fields of study (Source: Jessica Strickland).

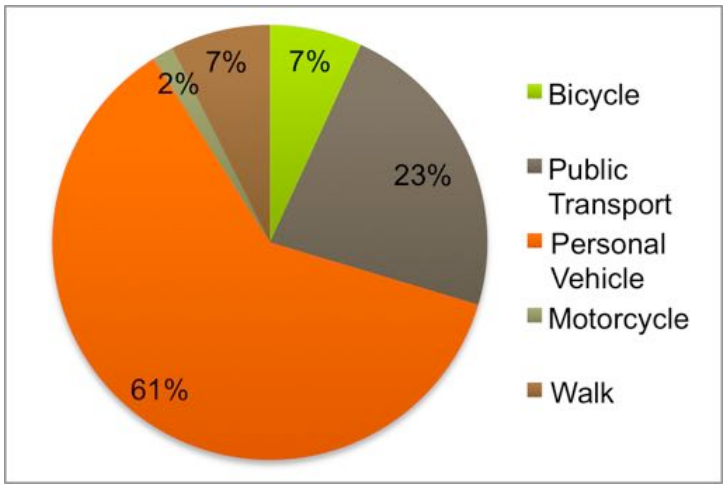

Figure 5: Proportions of people who travel to university by different modes of transport (Source: Jessica Strickland).

were studies in information technology (IT) and the humanities, such as law, education, music and language.

Table 1: Number of who do and don't use campus greenspace by field of study (Source: Jessica Strickland)

Field	Do Use	Don't Use	Total
Business	26	17	43
Health	30	12	42
Science	17	9	26
Environment	17	8	25
Engineering	13	11	24
Other	9	4	13
Humanities	7	6	13
IT	4	6	10
Total	**123**	**73**	**196**

Analysis of the survey population indicated that the vast majority (61%) of students travel to and from university by personal motor vehicle (Figure 5). Much study is currently aimed and the increasingly large proportion of travel by car in Australia and there is concern for the many implications this can have on populations, such as increased obesity, decreased health and increased urban air pollution (Henscher 1998, pp. 193-5). A great challenge for planners is to 'find 'solutions' to the imbalance between the modes of transport; seeking ways of repositioning public transport so that the use of the car is reduced in urban environments' (Goodwin et al. 1991, in Henscher 1998, p. 194). Potential future surveys of Griffith University students could seek to examine why such a large proportion of individuals choose personal vehicles as their preferred mode of transport. Further, more specific research on the reasons behind this could provide the potential 'solution' that Goodwin refers to (Goodwin et al. 1991, in Henscher 1998, p. 194).

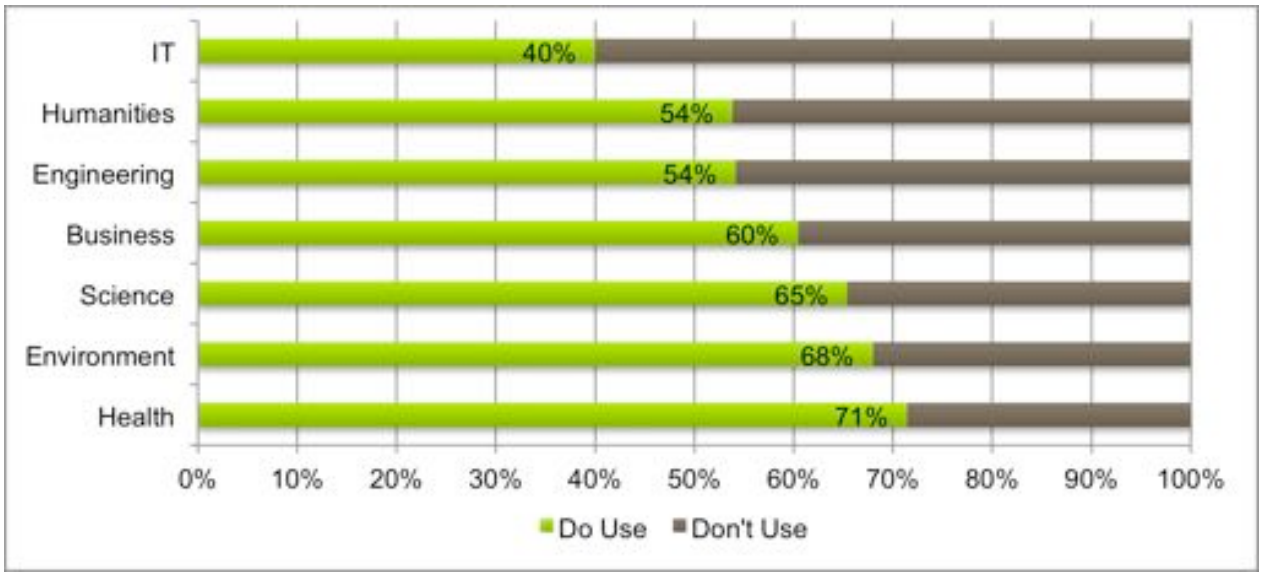

Figure 6: Proportions of people who do and don't use campus greenspace by field of study (Source: Jessica Strickland).

The majority of the population surveyed (63%) claimed that they do use campus greenspace; the rest stated that they did not. Upon analysing the survey data, it became apparent that members from different fields of study had differing views about campus greenspace (Table 1). For example, 71% of people surveyed who are in the field of health claim that they do use campus greenspace, whereas much less, only 40%, of those studying information technology (IT) claim to (Figure 6). These statistics suggest that

people studying health prefer to use outdoor greenspace whilst people studying IT prefer indoor facilities. After health, environment and other sciences were the fields in which greenspace use was most common (68% and 65%, respectively) (Figure 6). Engineering and humanities students were the least likely, after IT students to use campus greenspace (only 54% of each population claimed to use greenspace). Additionally, 60% of business students claimed to use campus greenspace, which was only slightly below the average for the entire survey population (Figure 6).

However, although it is usefuls to make general comparisons between the differences in greenspace use in various 'groups' of people, it is important to note the flaws that existed in the method of data collection. Due to the time limitations, stratified sampling for selecting participants was not possible and it is likely that some groups of people, such as those studying IT, are underrepresented within the survey population (Table 1). For this reason, the relationships between greenspace use and different 'groups' of people within the campus cannot be conclusively analysed in great detail. In order to better understand these social-environmental relationships, further research would be required using a larger survey population and stratified sampling to 'ensure that the sample adequately represents various subgroups' (McLafferty 2010, p. 85).

1d. Describe the results of the surveys. What makes a good university campus green-space? What were the most common and least common ideas to emerge from the surveys? How do those ideas differ between participants, if at all?

Within the greenspace questionnaire, participants were asked to rank the importance of various campus facilities from one to ten. From participant responses, I was able to determine the average deemed importance (out of ten) for each campus facility (Figure 7). Analysis indicated that survey participants believed the library to be the most important campus facility and, overall, greenspace ranked the seventh most important facility (out of the ten facilities listed) (Figure 7). Survey participants were also asked to record what aspects of the university negatively impacted their use of greenspace. The four main

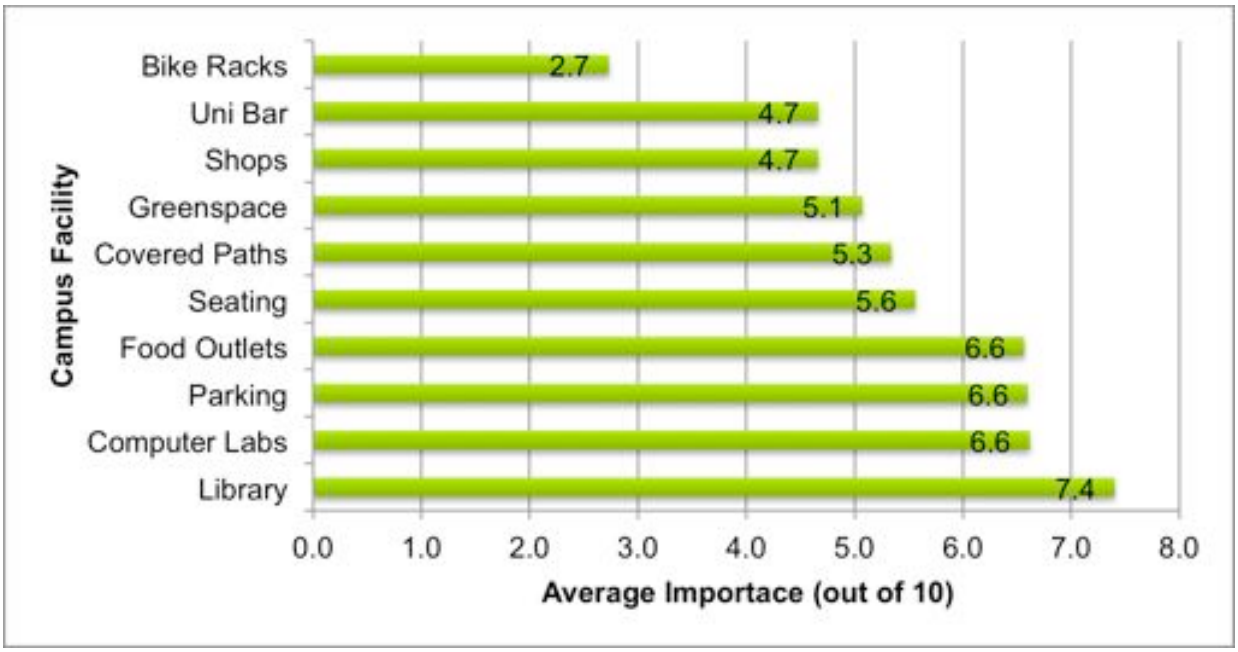

Figure 7: Average rated importance of various campus features and facilities (Source: Jessica Strickland).

negative impacts highlighted were construction, lack of benches and tables, lack of shelter and bad maintenance. It is important to note that each of these impacts negatively affected over 53% of students surveyed (Table 2). This high response rate indicates potential reasons why greenspace might have received an overall average importance of only 5.1 out of ten (Figure 7).

Table 2: Percent of students who are negatively impacted by four main issues (Source: Jessica Strickland).

Negative Impact	Student Response
Construction	67%
Lack of Tables	58%
Lack of Shelter	58%
Bad Maintenance	53%

Analysis of the perceived importance of various campus facilities also indicated that the survey population considered parking to be much more important than bike racks (Figure 7). A close relationship can be seen between the percentage of people who cycle to university and the percentage of people who deemed bike racks to be in the top three most important campus facilities (Figure 8). Additionally, a similar relationship can be observed between the percentage of people who drive to university and the percentage of people who rate parking to be in the top three most important campus facilities (Figure 8). These statistical relationships suggest that the perceived importance of particular campus facilities may be related to the preferred mode of transport. Planners can use this information to reduce the demands for parking by finding ways to increase the percentage of people who travel to university by bicycle. Within the preferred mode of transport, it is also interesting to note that sex did not play a noticeable role on the choice of transport option (Table 3).

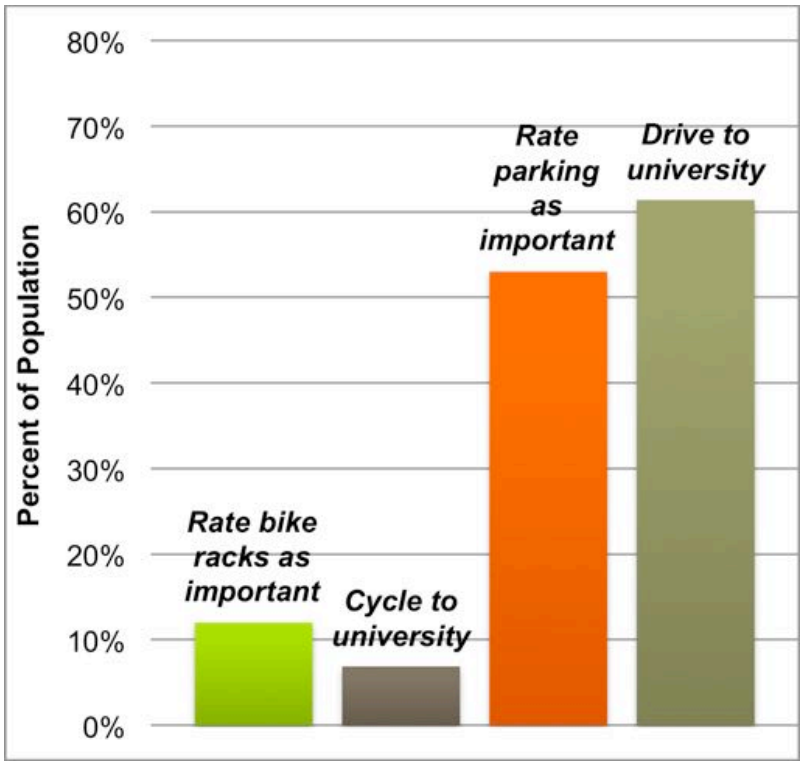

Figure 8: Comparison of people's perceptions of important campus facilities and their mode of transport to university (Source: Jessica Strickland).

Table 3: Proportions of males and females who use different modes of transport to travel to university (Source: Jessica Strickland).

Mode of Transport	*Female*	*Male*	*Female (%)*	*Male (%)*	*Total*
Bike	5	8	38%	62%	**13**
Public Transport	23	20	53%	47%	**43**
Car	58	58	50%	50%	**116**
Motorcycle	1	2	33%	67%	**3**
Walk	8	6	57%	43%	**14**
Total	**95**	**94**	**50%**	**50%**	**189**

Burgess (1996, pp. 130-5) highlights the importance of understanding the perceptions of safety amongst different 'groups' of people who use greenspace. The role of planners is to ensure that the urban environment is designed in a way that individuals are not made to feel unsafe or at risk (Cai & Wong 2009, pp. 219-21). Analysis of the greenspace survey data indicated that perceptions of safety aspects on campus differed between males and females. For example, of the people that believe there is a lack of both lighting and security on campus, 39% were male and 61% were female (Table 4). In total, concerns for the lack of lighting and security were expressed by 24% of the survey population. It is important to note that these issues could potentially be affecting a quarter of the campus population, which might prove to be a cause for concern for the university.

Table 4: Male and female perceptions of lighting and security on campus (Source: Jessica Strickland).

Sex	***% of people who agree there is a lack of lighting***	***% of people who agree there is a lack of security***
Male	39%	39%
Female	61%	61%

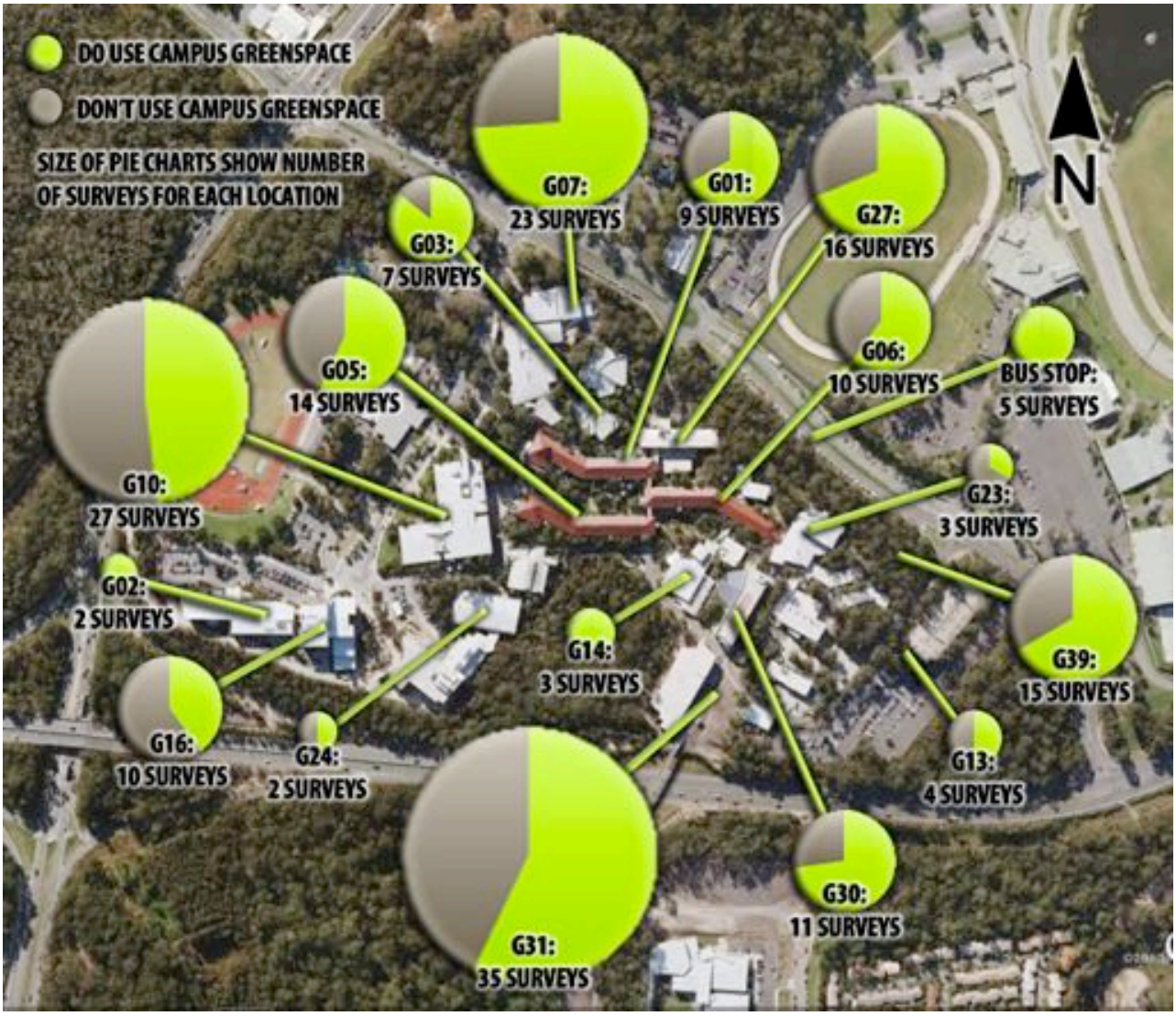

Figure 9: Map of Griffith University illustrating the survey responses for greenspace use at each survey location. (Source: Google Maps, Jessica Strickland)

It is critical to acknowledge that possible flaws in the survey technique potentially introduced bias into the data. For example, no measures were taken to ensure the strategic collection of survey data from specific points around the campus. This resulted in many surveys being conducted in some areas of campus and none in others. Analysis of the survey data suggests that the location where the surveys were conducted could be linked to whether or not participants claim to use campus greenspace (Figure 9). The map of the Griffith University campus in figure 9 shows the proportions of participants who do and don't use campus greenspace, based on the location where the survey was conducted. Larger pie charts represent areas where many people were surveyed and smaller pie charts represent parts of the university that were not well represented within the survey population (Figure 9). It can be seen that some locations, such as G07 or the bus stop, had high proportions of participants who claimed to use greenspace. On the other hand, G16 had higher proportions of people who claimed not to use campus greenspace (Figure 9). Wong and Domroes (2005, p. 617) state that 'a person's behaviour can be influenced by his or her perceptions of the environment'. Therefore, one theory for why this relationship appears to exist might be the fact that an individual's inclination towards greenspace could affect their travel routes and hangouts on the campus. Further, specific research would be required in order to test wether a relationship does exist between people's attitudes towards greenspace and the places they associate with and frequent on campus.

Part 2

Now go to the focus groups exercise from previous weeks and to the readings. We want you to compare your survey results with Stevens (2004), Wong and Domroes (2005), and Özgüner & Kendle (2006). Compare the findings from the surveys about what makes a good university campus green-space to the focus group transcript that you prepared. (i) How are your ideas about what makes a good university campus green-space similar to those from the focus groups and how are the different? (ii) What things might account for similarities and differences?

It is important for planners to design urban settings in a way that encourage playful behaviour, which 'allows people to escape their everyday roles, conventions, demands and restrictions' (Goffman 1972 & Huizinga 1970, in Stevens 2004, p. 139). However, the results of the questionnaire survey indicate that only 9% of the survey population utilise campus greenspace for recreational activities, such as play (Figure 10). Planners can apply information about preferred greenspace uses of by designing the urban environment in a way that encourages play, which Stevens (2004, p. 153) argues could help students 'develop particular aspects of self and distinctive modes of being in the world'.

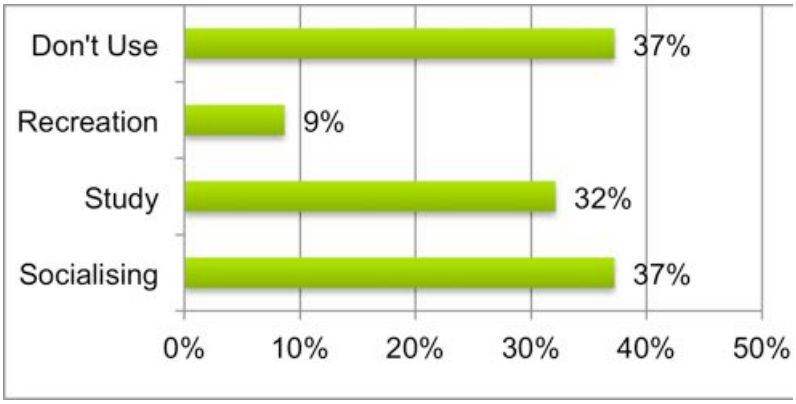

Figure 10: Percentage of population who utilize campus greenspaces in different ways (Source: Jessica Strickland).

Additionally, planners need to recognise and account for the fact that 'a person's behaviour is influenced by his of her perception of the environment' (Wong & Domroes 2005, p. 617). For example, the design of greenspace can influence the ways in which people behave, use and interact with that space (Golicnik & Thompson 2010, pp. 38-53). There is plenty of evidence to suggest that social-environmental relationships are affected by design (Wong & Domroes 2005, Golicnik & Thompson 2010), and hence one might suspect that large lawns would be used for recreational purposes, small lawns for socializing and secluded spaces for studying. The survey data does suggest that secluded spaces were preferred slightly by people who use greenspaces for socializing and study whilst large lawns were preferred slightly by people who use greenspace for recreation (Figure 11). Although the relationship between greenspace use and type is noticeable, it dose not appear to be incredibly significant. However, within the questionnaire, questions were not designed specifically to analyse the different uses that occur in different types of campus greenspace and further research is required to better examine this relationship.

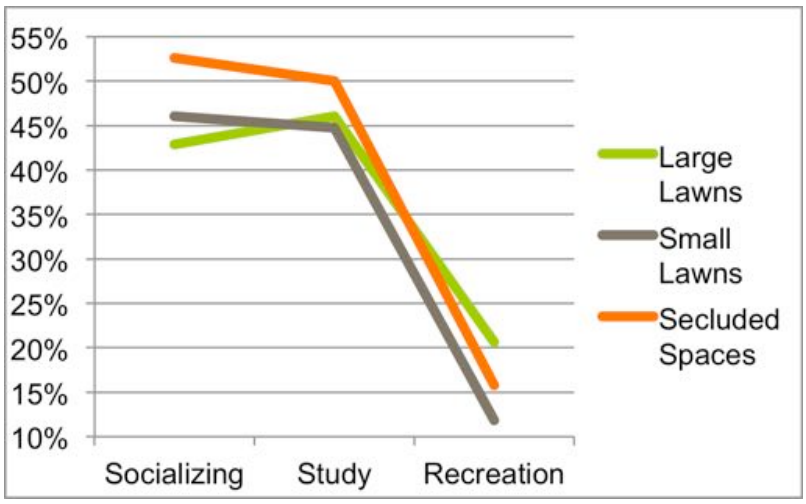

Figure 11: Relationships between types of greenspace and common greenspace uses (Source: Jessica Strickland).

Ozguner and Kendle (2006, p. 139) suggest that 'some people do not respond to natural landscapes in urban areas, and see them as unkempt, valueless or even frightening, and prefer the neat and tidy approach of formal, ornamental landscapes'. The results of the campus greenspace survey reflected this notion; 30% of the survey population preferred developed greenspace and 20% preferred natural greenspace. This inclination towards developed rather than natural greenspace may be due to the fact that 34% of the survey population believes that either the lawns or the vegetation in campus greenspace is messy and badly maintained. Despite the apparently low popularity of naturalistic greenspace on campus, it is crucial to remember that contact with greenspace is 'fundamental for human health and well-being' (Ozguner & Kendle 2006, p. 139) and therefore should be considered an important feature of the university campus.

Many of the attitudes and views recognised within the survey population require further analysis using extended research. Goss (1996, p. 113) outlines the value of focus groups as a research tool to 'supplement other methods' such as surveying. For this reason, I analysed the discussion from a focus group on campus green space where particular key issues and themes were addressed. There were both similarities and differences found in the key issues highlighted within the focus group and the survey data (Focus Group 2 2012, pp. 1-4). As outlined previously, a prominent issue that was highlighted both within the focus group discussion and within the survey data was the need for more tables and benches in campus greenspace. Many views that emerged within the focus group, however, were contradictory to the themes that were apparent in the survey data.

For example, within the focus group the importance of campus green space for recreation was regularly emphasized (Focus Group 2 2012, pp. 1-4). Emily (2012, pers. comm., p. 2) outlines the need for a large space for recreational activities such as 'volleyball' or 'any sporting activities'. Additionally, Chris (2012, pers. comm., p. 1) states, 'we should have recreational green space… for people to actually play sports'. Throughout the focus group, this point was raised regularly and was agreed on completely, without opposition in any form (Focus Group 2 2012, pp. 1-4). However, less than 9% of the survey population claimed to use campus greenspace for recreational activities. Additionally, small lawns, which might not be considered appropriate for many types of recreational activities, were the most preferred type of campus greenspace amongst the survey population (Figure 12). This is an example of how different research methods can draw attention to different views and attitudes within the same population.

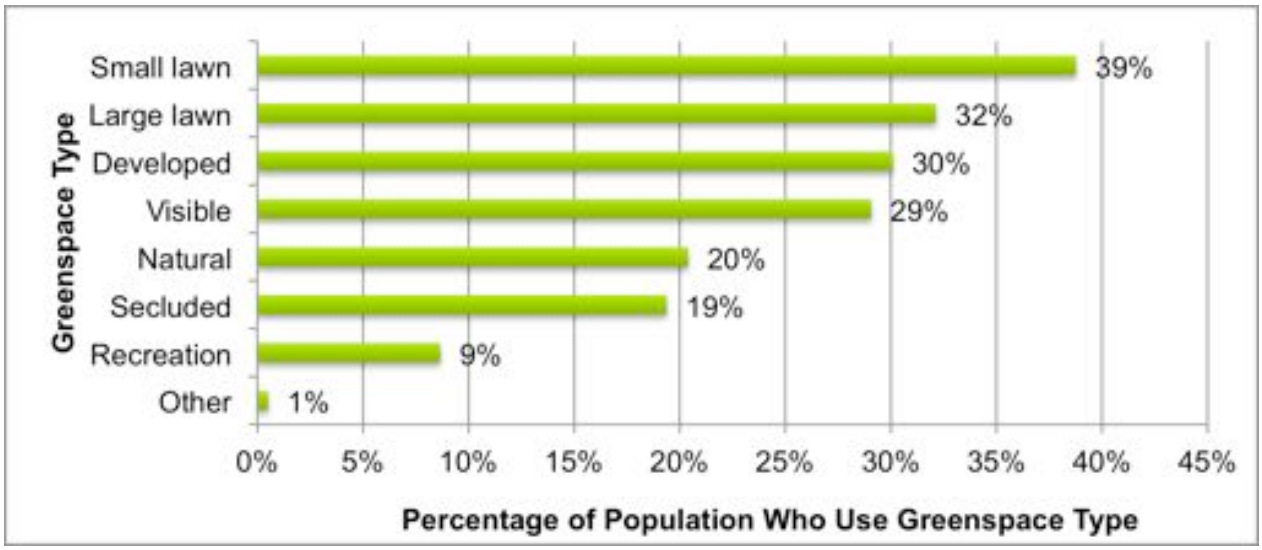

Figure 12: Number of people who use each greenspace type (Source: Jessica Strickland).

Another topic that was prominent within the focus group discussion was the issue of limited accessibility to greenspace for disabled groups (Focus Group 2 2012, pp. 1-4). However, less than 5% of the survey population claimed that lack of disabled facilities negatively impacted their experience of campus greenspace. From this small figure, it would be easy to assume that this is not a prominent issue on campus and therefore it has minimal importance. However, this is an example of how questionnaire surveys can sometimes result in certain subgroups being under-represented in the data (McLafferty 2010, p. 85). For example, only 5% of the survey population states that lack of disabled facilities had a negative impact on their experience of campus greenspace, however, 81% of the survey population said that wet grass had a negative impact. These results foreground the issue of wet grass, making it seem far more important than the lack of disabled facilities. Common sense tells us that the need for accessibility and disabled facilities outweighs the need for dryer grass to sit on. This is an example of how qualitative research methods, such as the focus group conducted, are often a useful tool to compliment surveys, and highlight trends, views or issues that might have otherwise gone unnoticed.

A major factor that could have contributed to the discrepancies between the attitudes apparent in the focus group discussion and those in the survey data is the demographic of people that were involved in each research method. For example, the focus group

consisted of a very small group of students between the age of 17 and 24, all of which are studying environmental planning. The survey population consisted of a much broader group of individuals, most of which were not in an environment-related field of study. It is important to note, however, that there were similarities between the common themes learned from the focus group and the survey data. For example, a primary use of green space within the university mentioned repeatedly during the focus group was as a location for socialization (Focus Group 2 2012, pp. 1-4). This theme was reflected in the survey data as 37% of the survey population agreed that they use campus greenspace for socialisation. McColl (2002, p. 21) supports the use of such spaces for socialisation and states that 'public spaces give us the opportunity to engage with others'. This is especially crucial and applicable to university students (Focus Group 2 1012, pp. 1-4). Planners can use the information from a variety of research tools, such as focus groups and questionnaire surveys, to not only examine the uses of campus greenspace but also the general perceptions, values, attitudes and views of greenspace amongst Griffith University students. This information is crucial to ensuring that campus greenspace is designed and maintained in a way that encourages positive perceptions and attitudes amongst students.

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Appendix 1

Attach a copy of your non-response sheet and the original survey response sheets here