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Assessing Public's Opinion On Parks and Open Spaces In the Borough of Merton

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Abstract

This project, done for the London Borough of Merton, surveyed 450 borough residents to determine usage patterns and levels of satisfaction with Merton's parks and open spaces. Recommendations down from the survey results include measures to improve security, condition of equipment , and reduce acts of vandalism.

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1.0. Executive Summary

The Education, Leisure and Libraries Department decided to survey the people of Merton so they can increase the overall satisfaction of park users. Our main goal was to access the public's opinion on the parks and open spaces in Merton. When we first arrived in Merton, we toured many of the parks and open spaces located within the Borough.

After our tour of the Borough we started to survey the people of Merton. We divided the Borough into four different areas, Mitcham, Morden, Raynes Park, and Wimbledon. We attempted to survey an equal amount of people from each of theses four main areas. People were surveyed people at many different parks and open spaces in Merton. Surveys were distributed at schools in order to reach younger people in order to assure that we surveyed people of all ages. Senior bowling leagues were also surveyed to make sure people of a more mature age were included.

Our survey yielded many interesting results. A majority of the people we surveyed stated they would like to see security improved. Many people also stated that they would like areas set aside for their specific interest. An example of this is parents indicating that they would like to see the playgrounds become a dog free area. Our survey also yielded many positive results. A majority of the people we surveyed said the parks and open spaces were average if not good. Many respondents also stated they liked the simpler activities at the park such as walking in an outdoor setting or just using the parks as a place to socialize.

We were asked to analyze the data in various ways in order to make sure we discovered many important trends. We first analyzed the data given from the complete sample to gain an overall picture of what the respondents thought about the parks and open

spaces. We then divided the sample into four groups based on which one of the four main areas the respondent lived in. We did this in order to see if there were any problem areas in the Borough. Our results showed that Mitcham was slightly below average in terms of safety and condition of equipment when compared to the other three areas, which were above average. Our sample was divided into different age groups, this was advantageous when we asked our sample what activities interested them the most. Approximately 60% of the respondents ranked outdoor activities higher then other forms of recreation such as watching television, going to the theater or movies and playing computer or video games. Specifically, more than half of each age group mentioned outdoor activities as their favorite form of recreation. Many younger people ranked computer and video games as their second favorite activity while older people said they like to watch television.

We were also asked to survey people who did not use the parks and open spaces regularly. This was done by, handing our surveys out to shop keepers and business people. Our results showed that many people used the parks and open spaces. Usage might be so high because the people of Merton have little yard space and they needed parks for playground space as well as a place to walk the dog.

Many people asked for additional security measures. This would be our first recommendation. Additional security measures could keep equipment looking better for a longer period or time. If people feel safer and the equipment is allowed to stay in better condition we believe this could cause more people to use the parks. Also a separate area for dogs could increase the satisfaction of people who do not bring dogs to the park. Our recommendations are straightforward and were based on our analysis of the data. First of all, we recommend that personal safety issue should be improved, especially in

Mitcham. A high cost solution to this problem would be hiring some form of security personnel. A lower cost solution would be the use of security cameras combined with some form of lightning. Another low cost solution would be to just lock the gates at night. Co-operation with the residence around the parks would also be useful, they can report any unusual behavior happening at the parks and open spaces.

Our recommendations are aimed to increase the overall public satisfaction with the parks and open spaces. A higher public satisfaction will then encourage residence throughout the Borough to use the available parks and open spaces. We also aimed that our research provides a baseline for future studies. While completing this project we gained a new respect for the role that parks and open spaces play within the community.

2.0. Introduction

Parks and open spaces (PAOS) are often very scenic parts of the landscape that can be taken for granted. The London Borough of Merton has decided to take full advantage of their PAOS by assessing public opinion on how these important resources can best be used by the community. This is why the Borough of Merton decided to ask a group of students from Worcester Polytechnic Institute to determine public opinion on the PAOS located within the Borough. Our tasks were to explore such issues as park usage, safety, the condition of equipment, and what other general improvements could be made to the PAOS within the Borough of Merton. One of the primary goals of this project was to establish a baseline representation of public opinion concerning the parks and open spaces.

This task was accomplished by conducting an extensive survey that created a representative sample of the people of Merton so we could then ascertain their opinion on the previously mentioned issues. Equal representation was a key factor in the success of this project, as it enabled us to make generalizations from our sample to the general population. Since people of all ages and backgrounds had an equal chance of being selected, and since we had a uniform response rate throughout the Borough of Merton, our survey was successful. This allowed us to make recommendations to the council of Merton based on the data we gathered.

The survey itself was a combination of open-ended questions in order not to limit the public from stating its opinion, as well as closed-ended questions, so statistical data could be more easily acquired and sorted. The survey itself was based on a similar survey that was recently commissioned to gauge public opinion on PAOS in all London Boroughs.

We obtained this information from our liaison, Mr. Chris Mountford once we arrived in Merton.

After the data were collected, our sample included people from various age groups and locations within Merton. We analyzed the data in a way that allowed us to make meaningful recommendations to the council of Merton on how to improve the PAOS. The two main factors we used in separating our data were the age of the respondent and which area do the respondents live. This made our final analysis concise and recommendations easier to apply.

The London Borough of Merton is rather large; it is 9,380 acres of land located in the southern part of London. The population is approximately 168,000 people, in 70,000 households. There are also approximately 3,500 small to medium size businesses operating in this economically diverse borough. These facts are important because the size and economic make-up of Merton is similar to the size and economic make-up of Worcester, Massachusetts USA. This allowed us to look at past studies conducted on the PAOS within Worcester, and helped us to form a preliminary vision about what problems the PAOS in Merton might be might be experiencing. Upon arriving at the Leisure Services Division in Merton, we also conducted interviews with local experts on the PAOS within Merton. This project entailed a great deal of hard work and effort. We created an efficient strategy to complete the project in the amount of time we had. Enough data was accumulated to make recommendations to the Council of Merton that everyone will hopefully be satisfied with.

This is an Interactive Qualifying Project (IQP), which was conducted in order to fulfill a degree requirement of Worcester Polytechnic Institute. The purpose of this project is to explore the relation between society and technology. In this project we explored the

public's opinion about the current state of the PAOS of the Borough of Merton. This was achieved by surveying a representative sample of the population of Merton.

Our goals for this project are to first assess public opinion on the PAOS in Merton. Based on the data gathered, our next goal is to form general and specific recommendations to the Council of Merton. Our last main goal is to provide a baseline for further research to improve public satisfaction on the PAOS in Merton.

The following chapters will explain the important role of PAOS within a community. Park usage in Worcester and past problems with the PAOS in Worcester will be explored. We will also explain how we surveyed the people of Merton. Also in later sections a more complete explanation of the way we plan to analyze the data we collected will be included. These next sections will contain a sample survey and more complete explanation of the factors that were taken into account when making our final recommendation.

3.0. Background

This section includes background research that assisted us in conducting our project. The Background section includes detailed descriptions of PAOS, a brief description of the London Borough of Merton, comparison between the city of Worcester and the London Borough of Merton, along with descriptions of statistical and survey methods.

3.1. Parks and Open Spaces

3.1.1. History of PAOS

PAOS have been part of urban settings for centuries. They started as mere spaces, which were used as a place for gatherings. An example of open spaces can be found in Roman times, where gardens such as the Porticus Livia were laid out for public use. The Assyrians also developed parks, where the parks at Khorsabad even contained an artificial hill with a temple and stretch of water (Chadwick 19).

It was not until the nineteenth century that we find the public parks as we know them today. According to George Chadwick from his book *The Parks and The Town*, the term "park" meant something different before the nineteenth century. At that time a park was:

> "An area of land adjacent to a gentleman's house, which had been enclosed from public use and which had been planted, modeled, and embellished by one or other of the protagonists of what has come to be known as the British Landscape School – whether Switzer, Bridgman, Kent, Brown, or Repton, or one of the many amateurs, the Burlingtons, Shenstones, Hamiltons, Prices, or Knights."

Later, the Landscape Movement influenced town design, Bat exemplified this during the 1760s, where the Circus, Royal Crescent and Lansdowne Crescent were all constructed. The designers in the movement created new urban landscapes for private enjoyment similar to London Square, which was used solely for those living in the houses enclosing them. During Victorian times, parks finally became open to the public. This occurred because of the spectacular growth of the industrial town that created the basic need for such areas, along with the Victorian enthusiasm for reform (Chadwick 19).

The Victorians' attempt to combine an industrial town with parks was unsuccessful, as the limited amount of green was clogged by black smoke from factories. A more practical idea was to create a city within a park. Although in a mutated form, the public park has become an essential part of the town (Chadwick 20).

There are many public parks today that were originally carved out of private estates, primarily from the eighteenth and nineteenth centuries. However, the public park was essentially a nineteenth century contribution to the landscape of a town. The most notable of these was the Royal Parks of London. Not only did this answer the great need for recreational space, but it also gave the West End its unique character when combined with the surviving domestic Regency architecture (Chadwick 20).

3.1.2. Definition of Park

The section above has shown us that the definition of the term park as we know it today was not the same before the nineteenth century. The difference is that before the nineteenth century, parks were private gardens; but after the nineteenth century, parks were in the form of public property. Donald J. Molnar and Albert J. Rutledge defined recreation as refreshment of the mind or body through some means that is self-pleasurable. From this

definition, they defined the term park as a piece of land or water set aside for recreation of the people (2). According to the Merriam Webster Dictionary, park is defined as "a tract of ground kept as a game preserve or recreation area."

The definition of park can be further extended. In the book *Anatomy of Parks*, Molnar and Rutledge defined park as an outdoor public place consisting of natural elements, use areas, major structures, minor structures, people, and other animals that are affected by forces of nature. The natural elements include land, water, and plants; use areas include game courts, ball diamonds, parking lots, road walks, and maintenance yards; major structures and minor structures include buildings, dams, drainage, electrical and other utilities, fences, benches, drinking fountains, and signs (15).

While each part has a singular purpose, no one part can exist in isolation from the others. For example, the orientation of the sun affects the location of the amphitheater because the sun must not shine directly in the eyes of the audience. Interdependence among all the parts must be recognized and accommodated if any single part is to work. Consideration of such relationships extends from the broadest determination of the park's location in the city plan to the smallest decision about where to place the trash basket.

3.1.3. Definition of Open Spaces

The definition of open space is rather ambiguous. The London Borough Association (LBA) is one of many organizations that has been concerned with the use and definition of open space. London planners defined open space as a plot of land that is not developed with houses, buildings or anything else unnatural (Damon, Desmarais, & Green, 26). The Boulder County Comprehensive plan from Colorado in the United States defined open space as lands that are being intentionally left free from future development, and in

which it has been determined that it is, or may in the future be, within the public interest to acquire an interest in order to assure their protection (http://www.boco.co.gov). The uncertainty of the definition lies in the question of whether open spaces should be considered to have a recreational purpose. To minimize this, we will consider open space to have a passive recreational purpose. Passive recreation can be considered to be an outdoor activity that creates opportunities for independence, closeness to nature, and a high degree of interaction with the natural environment. The area for passive recreation in its natural appearing environment should be large enough for a family to enjoy a long leisurely walk (http://www.boco.co.gov).

3.1.4. Functions and Benefits

The need for recreational facilities and programs is related to population density, age distribution, income levels, economic, and political variables. Therefore, the use of parks can be determined and changed depending upon the function of recreational facilities. Although these may vary, there are basic functions and benefits that do not change.

According to the Boulder County Comprehensive plan, the functions of open spaces are summarized as follows:

1) Urban shaping between or around municipalities or community service areas, and buffer zones between residential and non-residential development.
2) Preservation of critical ecosystem, natural areas, scenic vistas and areas, fish and wildlife habitats, natural resources and landmarks, outdoor recreation areas, cultural, historic and archaeological areas, linkages and trails, access to public lakes, streams and other useable open space lands, and scenic and stream or highway corridors.

3) Conservation of natural resources, including but not limited to forest land, range lands, agricultural lands, aquifer recharge areas and surface water.
4) Protection of designated areas of environmental concern, generally in multiple ownership, where several different preservation methods (including other governmental bodies' participation or private ownership) may need to be utilized. (http://www.boco.co.gov)

The benefits of PAOS according to the government of Eugene, Oregon of the United States are as follow:

1) Playgrounds and sports fields offer places where children and adults can play organized sports and informal games, from frisbee tossing to soccer playing.
2) People can jog, bike, walk, roller blade and take leisurely strolls on trails and path systems.
3) People can visit the more natural settings to photograph and paint nature, bird watch, observe plants and enjoy quiet contemplation.
4) Open spaces floodways safely channel water away from homes and businesses.
5) Wetland, natural areas and vegetated parks help filter pollutants from the air and water and reduce noise pollution.
6) PAOS can contribute to a positive community image, attracting visitors.
7) Open spaces have a positive effect on property values because people consider proximity to parks, open spaces and natural areas important in locating or purchasing a home or business.

8) A connected system of PAOS enhances opportunities for citizens to walk and bicycle to work, leading to a healthier citizenry and providing viable habitat for wildlife. (http://www.ci.eugene.or.us)

3.2. London Borough of Merton

3.2.1. History of Merton

The London Borough of Merton is a suburban city located 20 miles south of London. The name Merton (Mere Tun) is taken to mean pond or marsh. The reason for this was that in prehistoric times all the London Boroughs was a region of dense forest, swamp, heath and marsh (Merton Official Guide 11). In 1965, Mitcham, Wimbledon, Merton, and Morden merged to form the London Borough of Merton with a population of 185,130 people (Merton Official Guide 22). The Borough extends from Wandsworth in the north to Sutton and Croydon in the south, with an area of 3796 hectares (Hutton). One interesting fact to know is that Mitcham is defined as "big village," while Morden is defined as "hill by the marsh." In the past 20 years, the population of London Borough of Merton has declined due to the fact that more people wanted to move to London. Today, there are approximately 168,000 people in Merton.

3.2.2. Merton PAOS

The Borough of Merton is proud of the quality of its PAOS, comprising 713 hectares, with Wimbledon Park and Mitcham Commons being the largest. There are a wide variety of facilities in the PAOS. For example, Cannizaro Park contains 400 species of trees and shrubs, some of which are rare and imported (Hutton). Appendix F shows the description of the PAOS in Merton

The London Borough of Merton has been concerned with the available PAOS for quite a while. In 1995, a survey, research project by Comedia was conducted in partnership with twelve local authorities: Bristol, Bromley, Cardiff, Dublin, Greenwich, Hounslow, Leicester, Merton, Middlesbrough, Sheffield, Southwark, and Sutton. The research examined over 10,000 parks and more than 1,000 park users were interviewed (Comedia 3). There were many recommended solutions that the project offered. Some of them are as follows:

> Developing local strategies for improving the quality of all public space, perhaps along the lines of a town centre management schemes and structures.
>
> Investigating other forms of management, as appropriate to each space and local condition: direct provision, partnership, voluntary management or Trust and so on.
>
> Developing new roles for the staffing or public space, which combined a public service role, with an educational, safety and maintenance role.
>
> Developing a parks brief in order to work with other agencies such as social services, environmental services, and arts and leisure departments

3.3. Comparison

To better understand our project, we undertook a comparison with the PAOS system in Worcester and Merton. We selected Worcester because of its similarities with the London Borough of Merton. Both cities have similar backgrounds in terms of location, where each one is an urban city close to a big city, and also because in the past Worcester has had the same problem that not enough people were using the available PAOS.

3.3.1. History of PAOS in Worcester

In June 1669, Worcester Common became the first official open space in the city. The first land donated to the city for a park was the 0.9 acres known as Grant Square. The Grant Square land was donated to the park system before the purchase of 28 acres in 1854 using public funds to build Elm Park. Elm Park was recognized as the first purchase of public lands for a park in the United States (Glavin 3). In the late 1800's, the parks in Worcester grew with the city itself. By 1919 the city park system contained approximately 1000 acres (Glavin 3).

3.3.2. Geographical Information

The resource base of PAOS in Worcester is diversified. Not only does the Parks and Recreational Department control considerable recreational land, but the Worcester School Department, private colleges and universities, industry, the Commonwealth of Massachusetts and private clubs also have substantial recreational land. The City of Worcester Parks and Recreational Department currently has approximately 1251 acres of parkland. A portion of its land (495 acres) is used for active recreation purposes. The Worcester School Department controls 345 acres where 141 acres is used for outdoor recreation. The private schools and colleges in the City have approximately 125 acres for outdoor recreation parks. The total parkland controlled by industry is about 40 acres. The Commonwealth of Massachusetts has a considerable amount of land, totaling approximately 89 acres. Overall, the total amount of land for public park use is 1653 acres (Glavin 9-15).

3.3.3. Problems, Solutions and Recommendations

The National Recreation and Park Association of America has recommended a standard of 10 acres of PAOS in urban area per 1,000 people. In 1970, the U.S. Census

Bureau population figure for Worcester was approximately 176,000; therefore, using the recommendation equation, there should be approximately 1,760 acres of PAOS. If we were to consider the areas owned by the City of Worcester (1,251 acres), it is clear that there would be a deficiency in outdoor recreation space. On the other hand, if we also consider all the PAOS included in the total figure of 1,653 acres mentioned in the section above, the City has adequate PAOS (Glavin 16)

One problem that was identified in a 1974 study of the Worcester parks system was limited accessibility. It was the recommendation of this study that an effort to improve accessibility to existing PAOS was needed. In order to improve accessibility, cooperation among City departments and commissions to buy adjacent lands would be required. This acquisition of land would improve physical access to existing parks and even provide specific facilities to nearby areas.

3.4. Survey

3.4.1. Introduction

Survey research is not itself an academic discipline, but there is a common language, a common set of principles for evaluation of new ideas, and well-organized professional reference groups. Lacking such an organization, the field has evolved through a somewhat independent and uncoordinated contribution of researchers trained as statisticians, psychologists, political scientists, and sociologists. However, the word survey is not well defined (Groves 3).

Survey data are used to estimate characteristics of a fixed population. When you are looking at a large population such as the inhabitants of Merton, it would be impossible to gather information from everyone. Only by sampling could the researcher gather

accurate information about the population in a limited amount of time. A sample that represents the varying components of the population must be identified to choose a good sample. A good sample is very important when conducting a survey such as this one. There are different types of survey errors that vary with the strengths and weaknesses of different survey methods, in addition to the problems of choosing a relevant sampling list and size. All of the terms relating to survey methods and errors will be explained in this section.

3.4.2. Survey Error and Design

Despite the diversity of outlooks on survey methods, there is an agreement on the significance of errors, which inhibit researchers who use surveys from obtaining their goals. In this context error refers to deviations obtained from survey results that are not a true reflection of the population (Groves 12). One must show special consideration when designing their survey, to make sure there is as little error as possible.

For a survey to provide accurate results, it has to have four characteristics. The first one of these characteristics is that everyone in the target population must have the same chance to be chosen for the sampling list. The second characteristic is that enough people must be chosen for the sampling list to accomplish the preferred level of reliability. Thirdly, the questions that will be asked must be straightforward and clear, so that the people are able to understand and answer them correctly. The last characteristic is to ensure that everyone who was asked to participate in our survey gave honest answers. If the surveys are not done this way errors will occur, which will cause inaccurate results (Groves 19).

Robert M. Groves organized these survey errors into four basic categories: coverage error, sampling error, measurement error, and non-response error. (Groves 22). Coverage error occurs when the sampling frame is different from the favored targeted population. The sampling frame is the list of the people from which a sample list will be chosen (Groves 25). As a result of this error, the sample cannot be generalized to the population. A survey that has coverage error would create results that differed from the population.

Survey estimates are subject to sampling error when not enough members of the population are included in the sample. The notion of sampling error generally refers to the possibility that the entire selection process could be repeated, yield a different set of people to form the sample and yield different results. This error can be overcome by selecting a large sample size (Groves 24).

Measurement error results from the improper recording of data on the survey questionnaire. These possible errors could arise when interviewers inadvertently suggest the way respondents should answer the question. Errors may be due to respondent's inability to answer questions or other psychological factors. Another form of this error is due to the effects of the method of data collecting. For example, face-to-face or telephone communication produces more reliable results than a mail survey, because people can send back incomplete questionnaires or questionnaires with unclear answers.

Non-response error occurs when an insufficient number of people respond to the survey, thereby decreasing the sample size, which will alter the result. The problem is the people who do not respond may have different views from those who do respond. When surveying the people, researchers must be sure the survey poses interesting questions and is not too long or else many people will not take the time to respond. If a portion of the

population being sampled feels the questions being asked are too personal, then they may not finish the survey. In this case, the survey will only reflect the respondents' views that were not offended. This modification could drastically change the results, thus producing a pointless survey that is not representative of the views of the population (Groves 52).

3.4.3. Survey Techniques

When surveying the population, there are four techniques: telephone, face-to-face, mail, and drop-off. Each one is sufficient in certain ways; which one to choose depends on the time, staff, and budget constraints and which type of errors you would like to avoid, as well as the type of questions that you intend to ask. We had a few restraints placed upon us being our lack of time and small amount of personnel.

Telephone surveys are often helpful when most of the targeted population have phones and when the questions are straightforward. Straightforward questions are very good because they prevent any misunderstanding of the questions, which will help to eliminate any measurement errors. Telephone surveys do have some faults in that they require more staff than mail or drop-off surveys because many people are needed to make phone calls, some people within the population do not have telephones and some people have multiple phone lines. Therefore, if the sampling list is taken from a phone directory, not everyone has an equal chance of being chosen. This will yield a coverage error.

Face-to-face surveys require many workers for large target populations, which means a large budget would be needed. The face-to-face method is best used when interviewers can go to the parks, schools and door-to-door. When the specific target population is unknown, using the face to face method is a good idea to make a sampling list (Groves 75). People are less likely to rudely turn away from the interviewer during a face

to face survey, thus causing non-response error to decrease. The measurement errors are also smaller because the interviewer can quickly answer any misunderstanding or probe for additional information about any question. On the other hand, face-to-face surveys can sometimes produce coverage bias. If the interviewer only goes to survey homes at one time of the day, people within the population may not be at home and will not have a chance to participate. The interviews must be conducted several times a day in order to achieve maximum participation.

Even though the problem of conducting face-to-face surveys at different times throughout the day seems like an easy solution, it takes a large number of interviewers to implement continuous surveying. For a small target population, face-to-face surveys work quite accurately, although some people may not want to answer face-to-face questions that ask personal information, such as age and income. In addition, when the target population gets extremely large, the required budget and staff deter many organizations from using face to face surveys (Groves 79).

Mail surveys require fewer people because no direct exchange is necessary. The sampling list is extremely important because if the mailing list does not accurately represent the targeted population, the survey is useless. However, this form tends to cause more instances of non-response error because it is easy for the people to throw away the mail surveys. Also, questions cannot be difficult to understand, as there is no one to explain them or to probe for additional information.

According to Robert M. Groves, mail surveys are extremely sensitive to coverage and non-response errors. Coverage error can be overcome by producing an appropriate sampling list that accurately spans the favored target population. Non-response errors can

be overcome by producing an interesting, attractive survey that respondents will be less likely to throw away. Also, re-sending replacement surveys or reminding non-respondents might yield a higher response rate. Both of these aspects of mail surveys must be watched closely to assure that they are as accurate as possible. Finally, drop-off surveys are a combination of mail and face-to-face surveys.

3.5.0. Statistics

3.5.1. Introduction

An important part of our research would be the use of statistics to analyze the data collected. Statistics are needed to validate any conclusions we find. This part of the background explains statistical terms and methods that we used.

3.5.2. Statistical Terminology

In a perfect world researchers would be able to take a census, which is the collection of data from the whole population. The chances of being able to survey the whole population are very small and researchers would have to settle for a sample of the population. A sample is a subcollection of data drawn from the population (Triola, 4). A statistic is a numerical measurement describing some characteristic of a sample(Triola5).

3.5.3. Different Ways of Quantifying Data

Before a statistic can be calculated, the data must analyzed. There are many different ways to analyze the data gathered. The first one is quantitative data, which are data that consist of numbers representing counts or measurements (Triola 5). The second one is called qualitative data analysis. Qualitative data are data that can be separated into different categories that are distinguished by some non-numeric characteristic (Triola 5). The last one is discrete data, which are data that result from either a finite number of possible values or a countable number of possible values (Triola 5).

3.5.4. Levels of Measurement

After sorting the data we needed to find a way to rank the data. There are three ways to rank a data. The fist is called the nominal level of measurement. The nominal level of measurement involves data that consists of names, labels, or categories only, the data cannot be arranged in an ordering scheme (Triola 6). The second one is called level measurement, which are data that may be arranged in some order but the interval between data values cannot be determined or are meaningless (Triola 7). This means you cannot measure the difference between good and excellent. The final type of ranking is called the ratio level of measurement. This way of ranking data occurs when there is meaning in the intervals and there is an inherit zero (Triola 8).

3.5.5. Samples From A Statistical View

There are many sampling methods and two of them are random sampling and stratified sampling. A random sample is when everyone in the population has an equal chance of participation (Triola 19). A stratified sample means the population was

subdivided into different groups such as age or gender to determine more clearly the opinions of certain segments of the population have on a certain issue.

When accumulating, sorting, and measuring data, surveyors must be sure to avoid certain errors. A small sample is an example of a statistical error. If a sample is too small you will not be able to create a statistic with very much confidence that it will apply to the general population. The technical term for when the opinions of a sample are not that of the general population is called sampling error.

3.5.6. Hypothesis Testing

A hypothesis in statistical terms is a claim or statement about a population (Triola 346). Before one can present any hypothesis to our sponsors as being significant, one must first perform certain statistical tests upon it.

To formally test a hypothesis, surveyors compare it to the null hypothesis. This can be achieved by using a sample statistic to decide whether or not the null hypothesis should be rejected or not. The central limit theorem can be used for creating a sample statistic (Triola 351). The traditional method of hypothesis testing is based on a comparison of the test statistic and the critical values (Triola, 355). A critical value is a value that is far enough away from the mean value that it signifies a significant difference from the mean value. To successfully complete this project and draw accurate conclusions from our data we will need to be familiar with all the methods and terms mentioned above.

4.0. Methodology

4.1.0. Introduction

The steps that we took to finish our project consisted of four parts that will be further explained in the next section. The first part was to build questionnaire items that were used as our means of gathering data. The questionnaire items that we used consisted of three parts. The first part was to ask if the people of Merton were going to the parks or open spaces. The second item asked why they were not going to the parks or open spaces, if they did not go regularly. If they did go to the parks or open spaces regularly, and what did they currently think about the parks. The last part was to ask for their suggestions on what kind of improvements on the parks or open spaces that they would like to see.

Once we completed our questionnaire, we distributed them to the people of Merton (Appendix E). Based on our research about surveys and other factors such as time constraint, we used two different methods as our communication medium, which we will explain further in the next section. The actual survey took approximately four weeks to implement.

Upon completion of the data collection, we used statistical methods to analyze the data gathered. The collected data were divided into four variables and each one was analyzed accordingly. The four variables were age, gender, parental responsibility and location. Finally, based on the data analyzed, we drew conclusions and provided the Council of Merton with general recommendations.

4.2.0. Sample Selection.

We were asked to survey 500 people who were residents of the Borough of Merton. Our liaison wanted us to survey as many people possible but said that by surveying 500 residents our data analysis would be of a size to adequately represent the overall population of Merton. When selecting the survey methods we used, the time constraints for the team were carefully considered. Since our team consisted of three people, with a limited amount of time to complete this project, we needed to pick our survey methods very carefully. Accordingly, face-to-face surveys and drop-off surveys were the best survey methods available because they were the most efficient forms of collecting data. Drop-off surveys served as the best method for collecting data from the residents, businesspeople and students in the London Borough of Merton. In spite of the fact that it took a long time for us to compose the survey, the chances of non-response error become insignificant, assuming that the survey questions were well written and straightforward.

We received responses from the surveys by two different methods. The first response technique we used was a prepaid postage response. After the questionnaires were completed, the respondents were able to send back the surveys via mail without having to worry about the necessary postage requirements. The second method that we implemented was the drop off system by which surveys were dropped off to certain candidates and then picked up at their convenience. This method assured us that the respondents were well informed before they completed the survey. This method also helped us eliminate non-response error because we personally retrieved the completed questionnaires. Accompanying our questionnaire was a cover letter explaining our purpose so the people would be aware of the subject matter. The main goal of our cover letter was to increase the

response rate. We also mentioned our appreciation for the respondents' participation in this survey.

The face-to-face interviews resulted in the most accurate and complete data with the least amount of error. They were very helpful in attaining survey data. Face-to-face interviews can be done on a one-on-one basis or one person can serve as a moderator while a group of respondents is completing the questionnaires. An example of a group face-to-face interview was when we interviewed students while they were at school. It was impractical to conduct an individual interview with every student in every school. Not only would this have been troublesome to the teachers and workers at the school, we also could not possibly accomplish this survey method because we lacked the time and personnel for such an accomplishment. Hence a written survey was handed out to the students at school while we were in the classroom to clarify any questions they might have had. We had chosen this method to better acquaint the students with our project and to directly raise awareness for the PAOS.

The surveys were given to anyone over the age of eight, since younger people may not have been able to participate in a well-informed manner. A high response rate was achieved by dispensing the surveys to students while they were in class. To ensure that there was no confusion caused by the survey, it was very important that the questions were written in a straightforward manner, applicable and suitable for all age groups. Confusing students with complicated questions could have resulted in inaccurate survey results. This survey method yielded accurate results and was useful in gaining information about the students of Merton.

We divided Merton into four separate parts for purposes of geographical distribution of the sample. This made our survey easier to conduct, because it gave us a geographic framework from which to form our sample. These four regions are Wimbledon, Raynes Park, Morden and Mitcham. Within each of these regions, we surveyed approximately 100 people who lived in the area. This sample also consisted of users and non-users of the parks. Since our plan was to survey only the people of Merton, Wimbledon was the first area that we surveyed due to the approaching Wimbledon Tennis Tournament. Apart from surveying people from within the Borough, we also targeted Wimbledon Chase school as a place to conduct our survey. We did this in order to get the perspective of children ranging from different age groups. Wimbledon Chase has children ranging from 8 to 12 years of age. To make sure we surveyed people of all ages including users and non-users, we surveyed the people in public places as well as parks. The public places that we surveyed were shopping areas, libraries, tube stations, and bus stations. We visited PAOS during the weekends and sunny days since they generated more people on those days. The parks that we visited were Wimbledon Park, Dundonald Park, Haydons Park and Cannizero Park. We also visited other parks but were not able to survey a significant number of people.

The second area of Merton that we surveyed was Raynes Park, which is located right next to Wimbledon. Here we also surveyed children and adults who are both users and non-users of the available parks. The parks at which we conducted our surveys were Cherry Wood Park, John Innes Park, John Innes Recreational Ground, Cannon Hill Common, and also other parks. The schools that we targeted were Raynes Park School and Bushey Middle School. Both schools have children ranging between the ages of 12 and 18.

We also surveyed public areas, such as shopping areas, libraries, and bus stations. We also surveyed two sports league organizations, which were the senior bowling green team and a cricket team.

The next main area that we surveyed was Morden since it was the closest to the office where we worked. The parks that we surveyed were Morden Park, Morden Recreational Ground, Mostyn Garden, Collier Wood Park, and also other parks. The two schools where we distributed our surveys were Rutlish Middle School and Watermeads High School. Since we were working in the council building which is located in Morden, it was very convenient for us to survey the people within the building, but we had to be sure that the people we approached were residents of Merton. This gave us an opportunity to survey people working within the building and that gave us more insight into what steps we needed to take to maximize our efficiency, because we were able to observe the response rate very quickly.

The last area that we surveyed was Mitcham. Mitcham was the last area that we surveyed because we wanted to become more familiar with the Borough of Merton before we entered one of its less secure areas. We distributed our questionnaires at Liberty Middle School. The parks that we surveyed here were Three Kings Piece, Figges Marsh, Mitcham common, Ravensbury Park, and other parks as well

We needed to obtain approximately five hundred completed questionnaires from these four diverse areas. We conducted our surveys over a seven-day period for each area and we collected about 10 to 60 surveys a day. This survey process took us one month to complete. After we completed the surveying portion of our project we then began to analyze the data which took us approximately two weeks.

4.3. Specific Survey Items

4.3.1. Background Questions

In order to categorize the data we collected, we asked the respondent several background questions. The respondent's age, gender, and family status are all-important factors that we considered while categorizing our data. Each one of these factors previously mentioned was expressed and measured in different ways.

The age of the respondent was measured by the interval level of measurement and can be expressed numerically. The nominal level of measurement was used to measure gender, since there are only two possible answers for this question, male and female. Family status was measured by asking the respondent if they were responsible for any children under the age of eighteen. The second part of this question was what is the age of the child. If a person has multiple children they were asked to give the number of children they are responsible for as well as the ages of those children. The ratio level of measurement was used to measure the number of children the respondent was responsible for. The nominal level of measurement was used again to measure which park is located nearest the respondent. A related follow up question for this issue was which park does the respondent live the closest to.

4.3.2. Park and Open Space Related Questions

The second part of our survey was used to determine the issues related to PAOS that the citizens of Merton were most concerned about. We asked the public for their opinion on the issues of safety, equipment, fee structure, accessibility, satisfaction and usage. These variables were measured in many different ways so we could determine what impact they had on overall park usage. Safety is a very important issue. We used the

ordinal level of measurement to gauge public opinion on this issue. We asked the respondent to rank park safety as being very good, good, average, below average or poor. The results for this question were expressed in a simple bar graph.

The next variable was fee structure. This variable was measured on a nominal scale. We asked if the fees for park usage is a large enough to discourage the respondent from using the PAOS or limit the respondent's usage. This question was asked in a closed answer manner with the possible answers being yes or no. Accessibility is another important issue we explored through our survey. We used the nominal level of measurement for this variable. We asked a close-ended question in which yes or no were possible answers. The question was, "do you have trouble getting to the park or open space nearest to you?" If a person answered yes, there was an open-ended contingency question that allowed the respondent to specify any problem they had. The ordinal level of measurement was used to determine the respondent's opinion on the condition of the recreational equipment within the park. The question we asked the respondent was to rate the condition of the recreational equipment within the park closest to them and the park they used the most. The possible answers to this closed-ended question were either very good, good, average, below average, or poor.

Another grouping of questions we asked was used to establish a baseline on park usage and how the respondent would rank the importance of the issues he or she was just asked. We received two major types of responses to this question, these being lack of interest or lack of free time. The next question we asked the respondent was to rank various forms of entertainment. This question used the interval level measurement and asked the respondent to compare other forms of recreation to outdoor recreation to see if

there was a general lack of interest in PAOS. The next question we asked the respondent was to rank the importance of the issues of safety, accessibility, and equipment in order to see which issue concerned the public the most. Appendices A and B contain a copy of our cover letter as well as a copy of our questionnaire.

5.0. Data

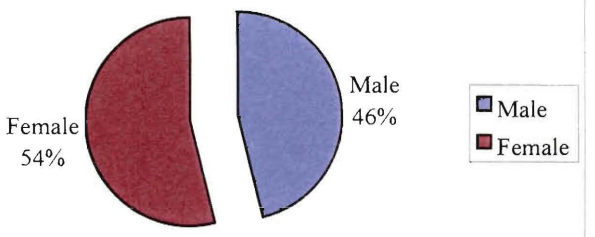
5.1. Introduction

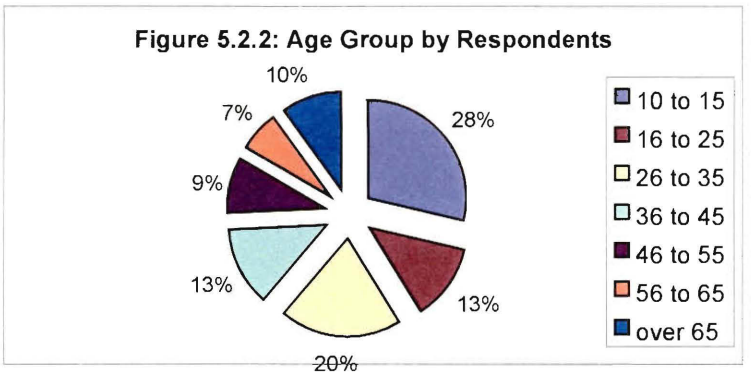
The main goal of our survey was to identify the people's opinion about the PAOS within Merton. As mentioned before, we conducted our survey in the four main areas of Merton: Wimbledon, Raynes Park, Mitcham, and Morden. We surveyed both users and non-users. All the data we gathered were stored in a Microsoft Excel spreadsheet. Appendix H contains the data in Microsoft Excel format on a computer disk. The survey results are shown in Appendix C. The spreadsheet helped us analyze the data and see any important trends.

5.2. Survey results

We conducted 453 surveys within the Borough. They consisted of 123 surveys from Wimbledon, 111 from Morden, 110 from Raynes Park, and 106 from Mitcham. Although we did not succeed in reaching our goal of 500 completed questionnaires, the sample had a fairly balanced distribution of gender and age. Figures 5.2.1 and 5.2.2 show the percentages of gender and age groups, respectively.

Figure 5.2.1: Gender of Respondents





The 1991 census of Merton indicates that about 52% of the population are female and 48% are male, which were very similar to our survey. The census also indicated that 20% of the people are under 15 years old, about 50% are from 16 to 45 years old, and 30% are 46 plus years old. Although our data are not the same as the census in terms of age group, the comparison was quite similar.

Our survey indicated that about 32% of the people surveyed were responsible for children under the age of 18. The respondents were also asked in what manner they go to the parks most often, alone or in groups. Only 30% of the people surveyed answered they go to the parks alone. Approximately 61% answered they go to the parks in groups. The rest of the respondents answered both, although we clearly said to choose one answer. We wanted the respondents to state the way they visited the park most often, alone or in groups. Unfortunately, we were unsuccessful in finding non-regular users of the PAOS to answer our survey. A majority of the people that we surveyed said they use the PAOS often. Only 15% of the respondents said that they do not use the parks regularly. This could be explained by the fact that many residents of Merton have very little yard space. Since many residents do not have the room to walk their dog or set up swing sets on their own property, PAOS are where they have to go for walking the dog and playing outdoors.

5.3. Closed Ended Results

In our opinion questions, respondents were asked to rate the safety of the PAOS they normally use. Figure 5.3.1 shows how the entire sample answered the questions, while figure 5.3.2 shows the answers of the respondents from Wimbledon, Raynes Park, Morden, and Mitcham. Figures 5.3.3 and 5.3.4 show the answer of the respondents from each age group and gender, respectively.

Figure 5.3.1: All Respondent Answers on the Safety Issue

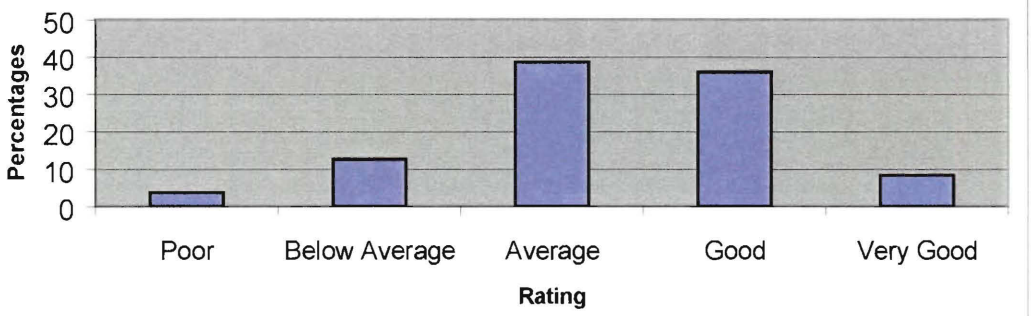
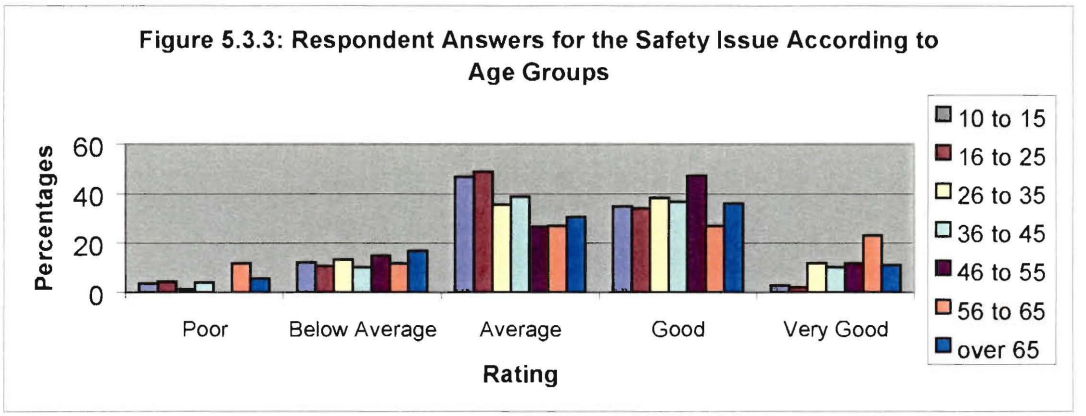
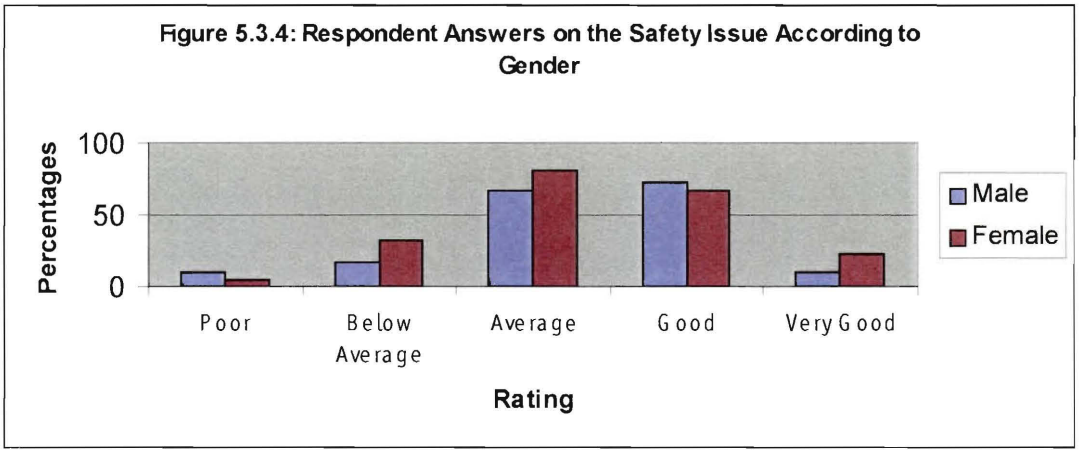


Figure 5.3.2: Respondent Answers for the Safety Issue in each of Four Main Area





The average answer for the entire sample was 3.36, with a scale of 1 being poor to 5 being very good. The average answers from Wimbledon, Raynes Park, Morden and Mitcham are 3.36, 3.52, 3.17 and 2.97, respectively. The average answers from males and females are 3.32 and 3.34, while the average answers from each age groups is shown in table 5.3.1.

Table 5.3.1: Average answers from each age groups

10 to 15	16 to 25	26 to 35	36 to 45	46 to 55	56 to 65	Over 65
3.21	3.19	3.46	3.387	3.56	3.38	3.30

We also asked the respondents to rate the condition of the recreational

equipment in the parks. Figure 5.3.5 shows the average answer from the entire sample. Figure 5.3.6 shows the answers from Wimbledon, Raynes Park, Morden, and Mitcham. The answers from each age groups and gender are shown in figure 5.3.7 and 5.3.8. The average answer from the entire sample was 3.26, on a scale of 1 to 5. The average answers from Wimbledon, Raynes Park, Morden and Mitcham are 3.44, 3.43, 3.07, and 3.83, respectively. The average answers according to gender are 3.16 and 3.34 for male and female, respectively. The answers according to age group is shown in table 5.3.2.

Figure 5.3.5: All Respondent Answers for the Recreational Equipment Issue

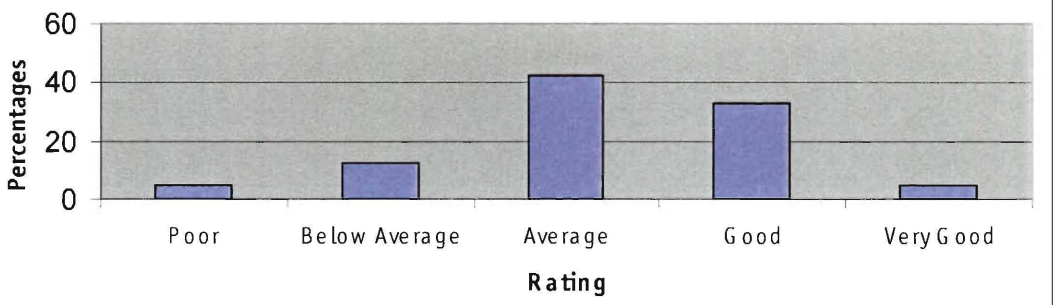
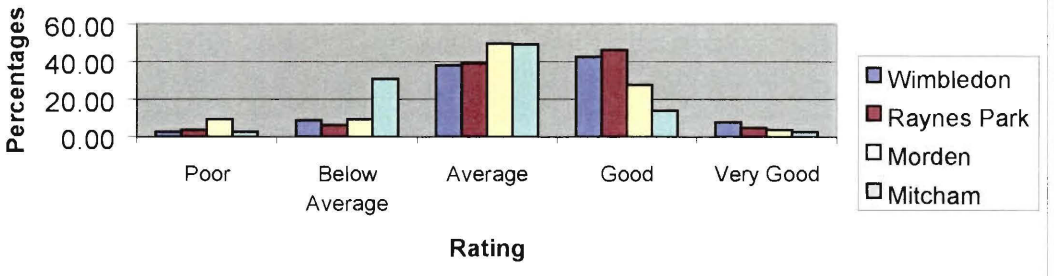
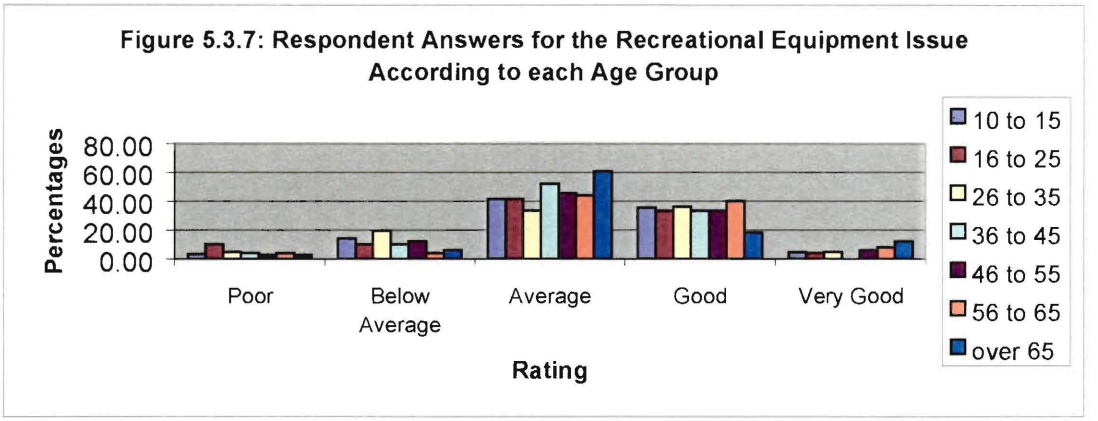


Figure 5.3.6: Respondent Answers for the Recreational Equipment Issue in each of Four Main Areas





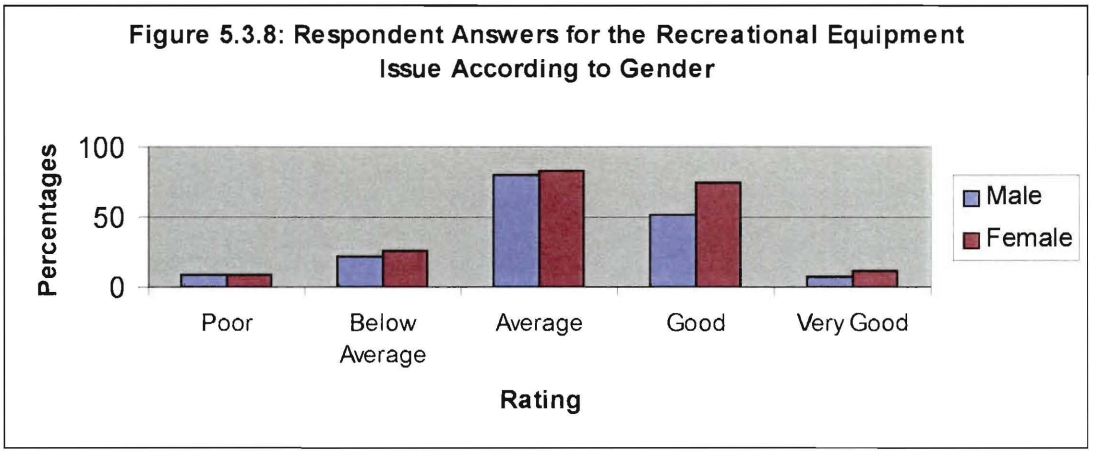


Table 5.3.2: Average answers from each age group

10 to 15	16 to 25	26 to 35	36 to 45	46 to 55	56 to 65	Over 65
3.23	3.10	3.16	3.15	3.27	2.44	3.30

The respondents were also asked what overall grade would they give the PAOS they used often. The choice of answers was similar to that of the first two opinion questions. Figure 5.3.9 shows the answers from the entire sample. Figure 5.3.10 shows the answers from Wimbledon, Raynes Park, Morden, and Mitcham. Figures 5.3.11 and 5.3.12 show the answers according to age group and gender.

Figure 5.3.9: All Respondent Answers for the Overall Grade of PAOS

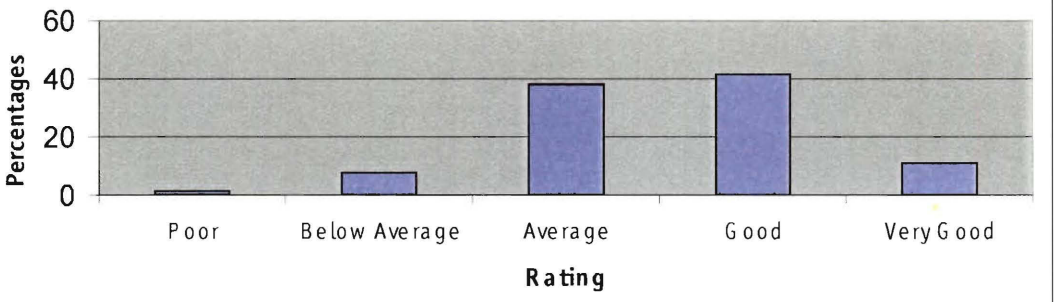


Figure 5.3.10: Respondent Answers for the Overall Grade of PAOS in each of Four Main Areas

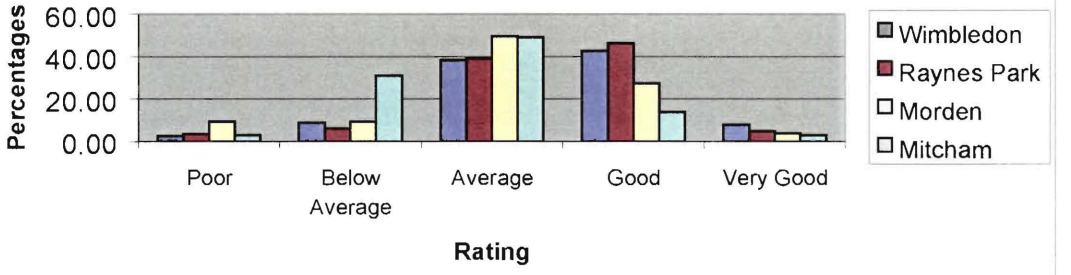
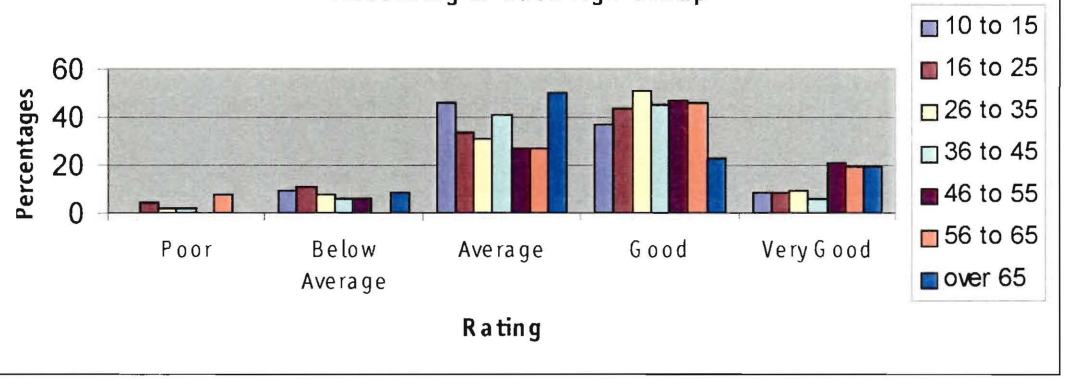
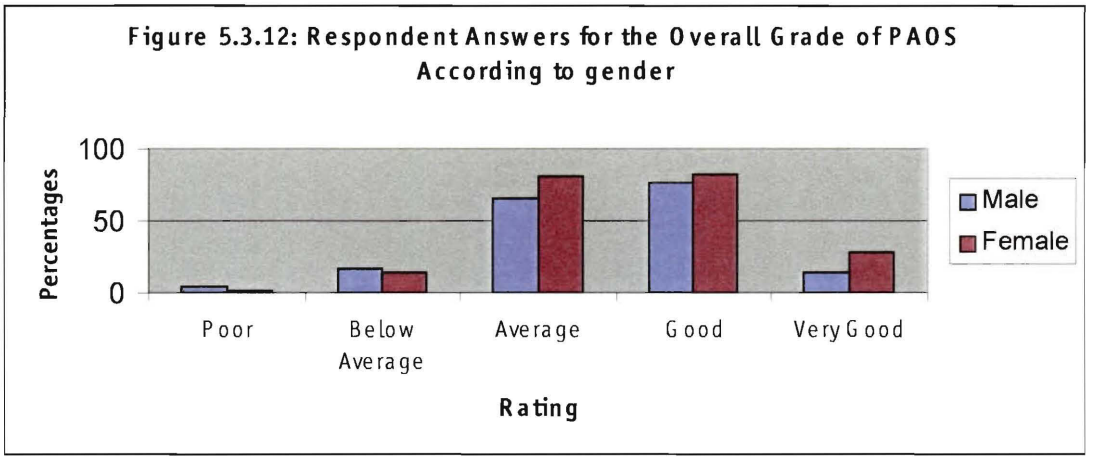


Figure 5.3.11: Respondent Answers for the Overall Grade of PAOS According to each Age Group





The average answer shown in figure 5.3.9 is 3.53, which is somewhere in between average and good. The average answers from Wimbledon, Raynes Park, Morden, and Mitcham are 3.76, 3.57, 3.45, and 3.19, respectively. The average answers according to age groups is shown in table 5.3.3, while the average answers according to gender are 3.46, and 3.58, male and female, respectively.

The fourth question that we asked the respondents was about accessibility. We asked them whether they had trouble going to the parks. The results showed that only 5% of our sample had trouble with accessibility. The main accessibility problem was that people believe the streets around the park are not safe. Respondents also stated that distance was a factor in accessibility. They said the parks were either to far away from their homes or the bus trip is too long.

We asked if a use fee would discourage the respondent's use of the parks. Approximately 47% of our sample said that a fee discourages them from using the

Table 5.3.3: Average answers according to age groups

10 to 15	16 to 25	26 to 35	36 to 45	46 to 55	56 to 65	Over 65
3.44	3.416	3.58	3.47	3.82	3.69	3.53

facilities. More specifically, approximately 55% of the respondents from Wimbledon, 40% from Mitcham, and almost half of the respondents from Morden and Raynes Park said that a fee would discourages them from using the facilities.

We asked respondents what park and open space related issues they consider important. The issues we mentioned were condition of the equipment, personal safety, and ease of access. The respondents were asked to rank the issues, with the first being important to the last being least important. Table 5.3.1 shows the answers of the respondents.

Table 5.3.3: Importance of park issues

	Condition of the equipment	Personal safety	Ease of access
Most important	22.10%	71.31%	16.11%
Important	53.04%	22.13%	22.78%
Least important	24.86%	6.56%	61.11%

In order to know more about the people of Merton, we asked them to rank the following activities: watching television, outdoor activities, going to the theatre or movies, and playing computer or video games. The answers they gave would allow us to see what kinds of activities are important to the respondents. The answers are shown in table 5.3.4, while the answers from each age group are shown in figures 5.3.13, 5.3.14 , 5.3.15, 5.3.16, 5.3.17, 5.3.18, and 5.3.19.

Table 5.3.4: Activities Answers from All Respondents

	Watching television	Outdoor activities	Watching theatre or movies	Playing computer or games
Most important	30.25%	54.14%	17.70%	8.47%
Important	23.25%	27.35%	37.08%	10.45%
Less important	30.53%	12.43%	29.21%	21.47%
Least important	15.97%	6.08%	16.01%	59.60%

Figure 5.3.13: Activities Answers from Respondents of the Age Group 10 to 15 years old

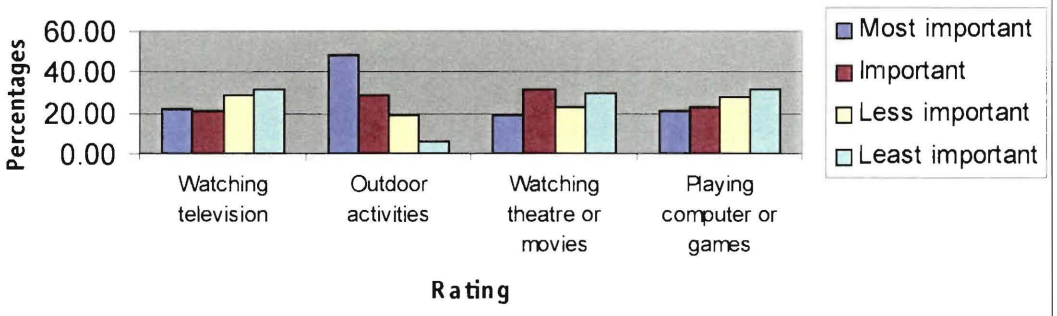


Figure 5.3.14: Activities Answers from Respondents of the age group 16 to 25 years old

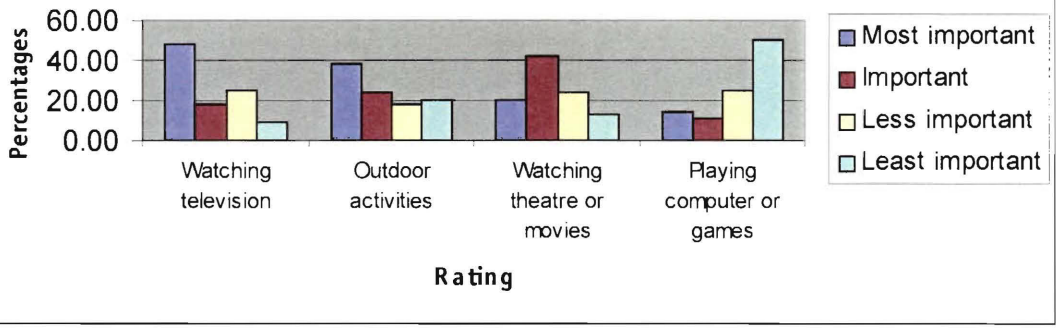


Figure 5.3.15: Activities Answers from Respondents of the Age Group 26 to 35 years old

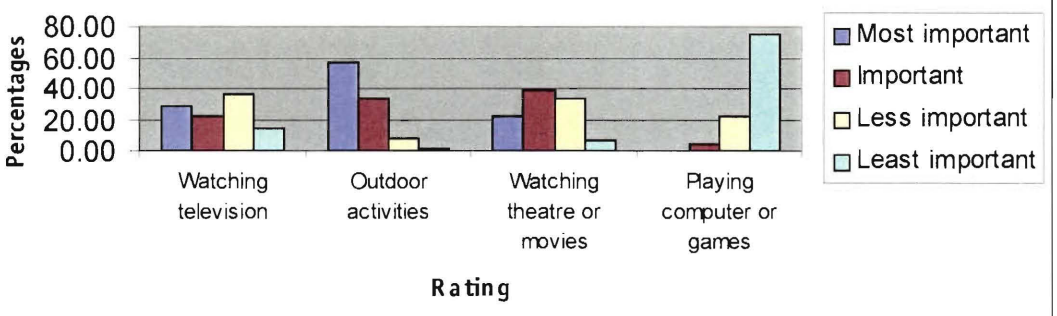


Figure 5.3.16: Activities Answers from Respondents of the Age Group of 36 to 45 years old

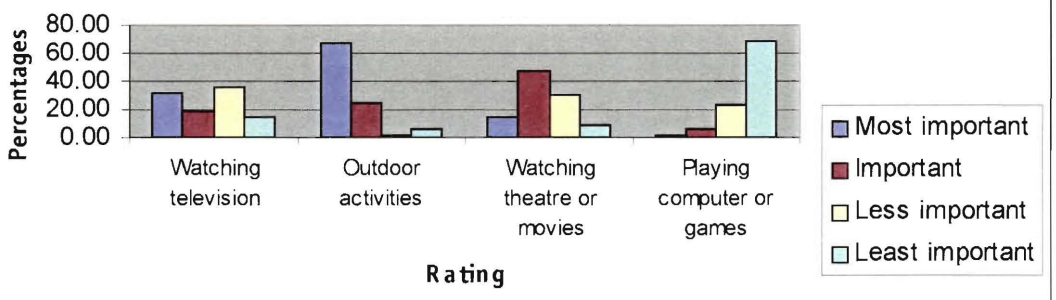


Figure 5.3.17: Activities Answers from Respondents of the Age Group 46 to 55 years old

Figure 5.3.18: Activities Answers from Respondents of the Age Group of 56 to 65 years old

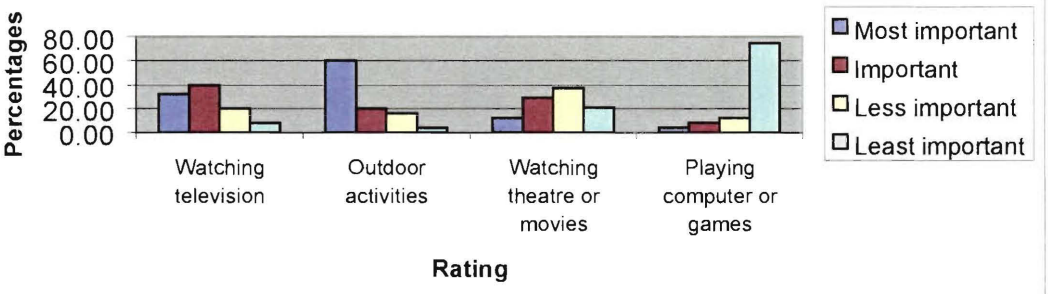
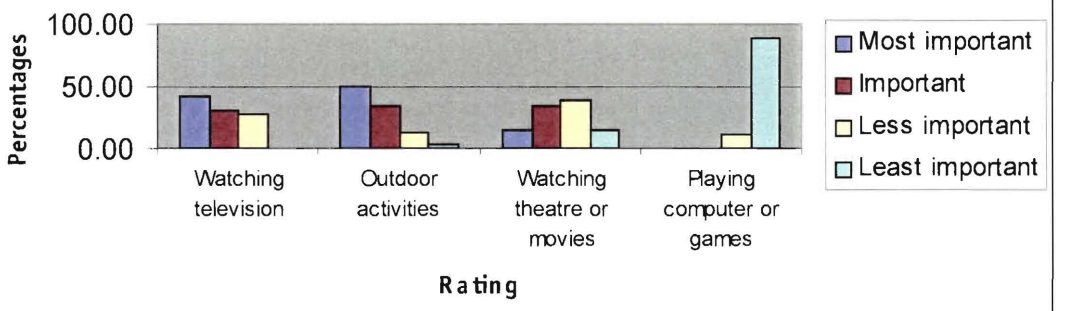
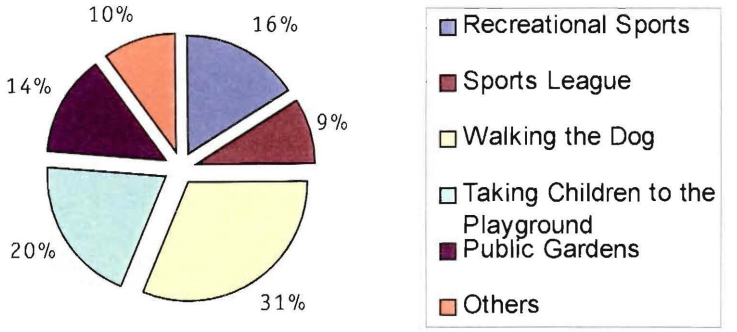


Figure 5.3.19: Activities Answers from Respondents of the Age Group over 65 years old



We also asked what the primary reason(s) people had for going to the PAOS. They were given the following answers to choose from: recreational sports, sports league, walking the dog, taking children to the playground, public gardens, and other(s). Figure 5.3.20 shows the answers from all the respondents. Most of the respondents who chose others said walking, picnics, or just socializing and enjoying the view. The last question that we asked the respondents was whether they bring their pet(s) to the parks. Approximately 45% said that they bring their pets to the parks.

Figure 5.3.20: Primary Reason Respondents go to the Parks



We also separate the data according to individual parks. We only analyzed the parks where five or more respondents mentioned as the parks that they go most often. The results are shown in Appendix D.

5.4. Open Ended Answers

Our survey included some open-ended questions. This would enable the respondents to offer their specific opinion without any limitation of answers. The questions that we asked were:

1. What do you enjoy the most about the PAOS that you use within Merton?
2. What are the things about the PAOS located within Merton that you would like to see changed?
3. If you do not go to the PAOS within Merton regularly, could you please specify your reason?

There were many different answers to the first question. Some of the answers that seemed to be popular were fresh air, freedom, greenery, and peaceful settings. Another answer was the ability to relieve the stress from everyday work. Most of the children under the age of 15 said that they enjoy the parks because they can socialize there, and are able to use the playground equipment, or just to "muck around" in the parks. More than half the respondents who use the parks primarily for sports said that they enjoy the parks due to the nice grass for playing football or the bowling green. Being able to walk without excess noise from streets or crowds is another reason given by many of the respondents. The answers that came from the respondents with pets said that they enjoyed going to the parks because they can walk their pet(s).

The second question also had many different answers. Most of the respondents said that they would like more security at the PAOS. Most of the respondents were concerned with the vandalism that occurs within the parks created mostly by teenagers. Closing the gate at night is one of the changes they would like to see. For respondents that have no pets, they feel the dog mess should be cleaned more often and certain areas such as picnic areas should be pet free zones. For respondents who like to walk or cycle, most of them suggested better paths for walking or bicycling. Another interesting fact is that some respondents want parks that have activities for older children aside from football or cricket.

As we said earlier, only 15% of the respondent said that they were non-regular users of the parks. Their explanation for why people are not going to the parks are mostly due to one of the following

- Lack of time to go to the PAOS.
- Do not have many activities to do for teenager or older children.
- Do not like the available parks or open spaces.
- Too much vandalism and graffiti.
- No interest in going to the PAOS.

6.0. Analysis

6.1. Problems Identified by Respondents

Our results indicated how the respondents feel about the PAOS in Merton. Questions that concerned personal safety had a variety of answers, ranging from poor to very good. Looking at figure 5.3.1, one can see that most of the respondents either said good (35%) or average (38%). Even though the respondents feel that personal safety was average if not good, they feel it should be better. This can be seen in the answers on the second open-ended question, where many respondents said the parks should be more secure. Many respondents are concerned with people who are drunk or took drugs and stayed in the parks. Respondents are also concerned about the vandalism and graffiti that was caused by teenagers who go to the parks at night. We noticed this when we visited several parks that had graffiti on the parks or playground equipment that was broken due to vandalism. Looking at figure 5.3.2, one can see that Mitcham had the lowest rating. The other three main areas, Wimbledon, Raynes Park and Morden, are generally better in terms of personal safety.

Concerning the condition of the recreational equipment, the respondents answer's also range between poor to very good. When asked about the condition of equipment, most of the respondents either answered good (32%) or average (42%). We believe that there is a correlation between security and condition of equipment. As one can see, lack of security can lead to vandalism, which in turn leads to degradation of the recreational equipment. The correlation seems more evident as we look at figure 5.3.6, which shows that the condition of the recreational equipment in Wimbledon, Raynes Park, and Morden seems to

be better than the recreational equipment in Mitcham. Knowing this, we believe that better security leads to better condition of the equipment.

Many respondents that go to Ravensbury Park mentioned that the condition of the toilets needs substantial improvements. They said that toilets look very dirty and the sinks do not work. Besides the toilets, they also said the trash bins needs to be cleaned more often.

When we asked the respondents to rank the following issues: condition of the equipment, personal safety, and ease of access, it is clear that personal safety is the most important. This can be seen in table 5.3.1. Condition of the equipment followed by ease of access came next. These results gave more evidence that personal safety issues are what the respondent believes to be the most important.

Solutions that were recommended by respondents to improve personal safety also vary. Some of them that were repeated were:

- Keep the gates locked at night.
- Security camera placed at the parks.
- Park keeper in place all the time.

6.2. People of Merton

Figures 5.3.13, 5.3.14, 5.3.15, 5.3.16, 5.3.17, 5.3.18 and 5.3.19 show what kind of activities the respondents enjoy. Our main reason for asking this question was to see whether the respondents had any interest in going to the parks compared to other activities. Even though a majority of the people said that outdoor activities are the most important activity, this was not the case in figures 5.3.14 and 5.3.15, where watching television seems

to be more favorable. Outdoor Activities comes right next. Overall, we concluded that many respondents in various age groups have an interest in going to the PAOS.

6.3. Microsoft Excel versus Graphic Information System

All of our data were recorded in Microsoft Excel. Microsoft Excel is helpful in analyzing data. Another approach to analyzing and displaying our data is to use Graphic Information System (GIS). GIS is software capable of creating locational context to a conventional database. By using GIS, one can see information enhanced by its relation to geographical location. Unfortunately, we were unable to use GIS due to the cost in installing the software and because most of our time in Merton was used for surveying. It is advisable that for future studies of park and open space, the researcher takes full advantage of GIS as an analytical and interpretive planning tool.

7.0. Conclusion and Recommendations

7.1. Identification of the Problems and Positives

Since most of the respondents gave the parks an overall grade of average or good, this led us to believe that there were not very many problems concerning the PAOS in Merton. A few of the problems that the respondents listed seemed to be similar throughout the Borough. These issues were personal safety, separation of facilities, and maintenance of facilities. Our survey also revealed many positive things about Merton's PAOS, with many respondents stating they are generally well maintained. Also, one of the things they enjoyed most about the PAOS was the fact that they were simply a place for outdoor recreation.

7.2. Problems Concerning the PAOS

7.2.1 Personal Safety Issues

Personal safety was an issue that many people addressed when we asked what things about the parks they would like to see changed. Many respondents said that they would like to see security personnel at the PAOS, the gates locked at night, as well as security patrols in the parks throughout the night. Most respondents mentioned one of these suggestions or a combination of the three.

We realize that security personnel are expensive, but we believe that deployment would prevent crime, they would be saving the Leisure Services Division the problem of having to repair, replace or clean large amounts of equipment. We believe that some form of security should be provided for the PAOS of the Borough. Some respondents did ask for more visible staff at the parks. We are aware that several parks do have people staffing them as well as people within our office who visit several parks a day. We think that the

problem might be that the staff members do not stand out enough. The size of the badges could be made a little larger or maybe if personnel wore caps that caused them to stand out people might feel more secure.

When all is said and done security personnel are too expensive. We agree with the Comedia Research study that was previously discussed. Programs should be set up so the community can take an active part in protecting the parks and open spaces located near them. We are aware that there are several organizations that provide certain services such as locking the gate(s) at night. We believe that more of these organizations should be commissioned so more parks can locked at night and more people will be alert of suspicious activity and report it quickly. We would recommend that the people who use the parks often should be recruited for these organizations. Football teams as well as people who are part of bowling leagues would be good people to ask because they would be watching parks that contain the equipment they use often. The more community involvement the better.

7.2.2 Recreational Equipment

Even though most people did rate the recreational equipment within the park average to good, there were still some issues that were commonly mentioned. Most of the respondents who were concerned about the recreational equipment were either the younger element of the population we sampled or respondents with children.

Many children asked for proper goals for football and better maintenance of football pitches in addition to better playground equipment. Older children also asked for more activities for them such as skate parks. Parents consistently asked for more recreational equipment for children's playgrounds. Parents also mentioned that they

wanted age limits as well as height requirements for the recreational equipment at children's playgrounds. Parents also stated that they would like to see an improvement in the way the paddling pools are maintained. The other recreational equipment related problem deals with the park keepers at the parks. Some respondents mentioned that the park keepers often deserted their posts. The respondents then would not be able to pay a fee for using the facilities such as tennis courts. When people started to use the facilities, the park keepers accused the users of trying to use the facilities for free. Also, a few respondents said that the park keepers were rude. Both of these factors can discourage park usage.

7.2.3 Other Problems

The only other main problem that was consistently mentioned was the fact that different types of park users want their own separate facilities. We noticed three distinct groups, with the first being the people who are responsible for young children, the second being older children who go to the parks without their parents, and the final group being the people who brought pets to the park.

People who were responsible for younger children constantly stated that they would like to see no dogs near the children's playground. Both the people who are responsible for young children and the older children mentioned that the dogs were fouling play areas. The people who bring dogs to the park also mentioned that would like to see more facilities for their dogs. More dog bins as well as a separate area for dogs where they can be let off their leash were two requests that dog owners made.

Another problem that respondents mentioned is many trash bins are often overloaded. Also, the toilets in some of the parks such as Ravensbury Park are damaged or

dirty. One solution is to simply clean the trash bins more often. Another solution is to add more trash bins. Damaged toilets should be repaired and maintained better.

7.3 Recommendations

7.3.1 Overall Recommendations

Our survey revealed some general concerns that are shared throughout Merton so we would like to start by proposing some general recommendations, which would address the problems mentioned in previous sections.

Our first recommendation is on the issue of safety. Since many respondents throughout the Borough said they were concerned with this issue, we believe that there should be an investment in additional security measures. The simplest way to improve security would be to lock the gates to the PAOS after a certain time at night. This means more community organizations to help lock down the parks and open them during the morning. We believe this security measure would reduce the theft of equipment located within the area. It would become much harder to steal property from the parks if any piece of equipment would have to be lifted over the gate instead of passed through.

Our next recommendation is hiring some type of security personnel. We realized this is expensive so we would recommend using a private company that would patrol Merton throughout the night. If that is too expensive it would also be helpful if local police could just simply patrol the areas adjacent to the PAOS and just be watchful for something that looks inappropriate. Another way is to have a good relationship with the house owners near the parks. If the house owners see anything wrong, they could call the police right away. Having some form of lightning in the parks would be another way. Teenagers who vandalize the parks usually do it in a dark place. By providing some form of lightning,

they would be more afraid to vandalize the parks. Also, lightning can work in conjunction with security cameras. Unfortunately, the camera system that the Council used did not work efficiently in dark areas. This was evident as we found out that the Council of Merton already tried this approach but did not succeed because the cameras were not able to clearly show who was committing the crime. With that aid of lightning, the cameras can perform more efficiently and effectively. If vandalism is reduced it will keep equipment in better shape for a longer periods of time. More creative ways to reduce vandalism that have been tried before is to actually set aside a wall for graffiti. If vandalism does occur community service projects can be organized through various non-profit organizations to reduce the cost of clean up.

We believe that if vandalism can be reduced, then equipment will be in better condition. We also believe that if such things as proper goals are too expensive, there are low budget solutions to this problem. The first would be setting up more of a target than a goal. An example of this would be setting up three metal pipes imbedded in the ground and welded together in order to form a goal. Since nets can be stolen don't put one in place. This would give the children something to work with and the cost of doing this would be small. Age and height requirements for playgrounds would also be helpful. This would prevent older children from damaging playground equipment because they are too large as well as preventing younger smaller children from injuring themselves. This last recommendation is more expensive to implement but it addresses the requests made by older children. In America such things as indoor climbing walls and skate parks have been created so older children have a greater variety of activities for themselves.

The last of our general recommendations would accommodation of all the different types of park users. To increase user satisfaction, a separate fenced area for dogs as well as more dog bins would be needed. Another way is to clean the dog bins more often. If this is not possible, an alternative approach would be to set up some type of buffer zone that separates playgrounds from sports pitches and areas that are set aside for dogs and their owners.

7.3.2 Specific Recommendations

Our survey results showed that the PAOS in Mitcham are the most in need of assistance. We would recommend that if any of our security measures were acted upon, Mitcham should be the first. Mitcham was the only area that scored lower than the other three main areas so any improvements should start there. Forty percent of the people within Mitcham said fees deter them using recreational facilities. We believe a follow up study in Mitcham should be conducted to determine whether or not the people in Mitcham would be interested in slightly higher fees for the use of recreational facilities in order to pay for additional security.

7.4. Final Conclusions

This project was commissioned in order to establish baseline research. We were successful in accomplishing this goal. The results from our survey can be used to provide the Leisure Services Division with valuable knowledge about the people who use the parks and what they would like to see improved. Since our survey established a baseline it could be used to set up additional surveys that are concerned with more specific topics.

APPENDIX A: COVER LETTER

LEISURE DEPARTMENT

Date

My ref ED\CM\HJO
Please ask for Robert DelPaine
Telephone 0181-545-3640

PARK USERS SURVEY

The Council would like to hear your opinion about the Parks and Open Spaces within the Borough. We are interested in how often you personally use the Parks and Open Spaces and we would like to know why you use them, or not as the case may be, and what value you place upon them. The survey forms are designed to allow us to create a broad brush picture in order that a base line can e formed upon which we can build future surveys.

We would appreciate your help by filling out the questionnaire and returning it to us. The information that you provide will be published in Council reports but all information on an individual will be kept confidential. If you have any queries please do not hesitate to contact me on the above number.

Yours sincerely,

Robert DelPaine
Market Research

APPENDIX B: SURVEY QUESTION

Background Questions

1. Gender (tick one) __ Male __Female

2. Are you responsible for any children of the age under 18? __ Yes __ No

2a. If yes, how many? __

2b. Age(s) of child(ren)? _____

3. What age range do you fit into?(Please tick one)

__ under 10 __ 10-16 __ 16-25 __26-35 __36-45 __46-55 __56-65 __65-above

4. What is the name of the park located nearest to you? (If you do not know the name of the park, the name of the street the park is located on.)

_____

_____

5. What is the name of the park you use the most? (If you do not know the name of the park, the name of the street the is located on.)

_____

_____

6. Which area of Merton do you live in?

__ Mitcham __Morden __Raynes Park __Wimbledon

7. Do you go to the parks alone or in groups ? (please tick one)

___ alone ___ in groups

Opinion Questions

1. How would you rate the safety of the parks and open spaces that you personally use? (Please circle one.)

   Very good Good Average Below average Poor

2. How would you rate the condition of the recreational equipment with in the parks or open spaces that you personally use? (Please circle one.)

   Very good Good Average Below average Poor

3. What overall grade would you give the parks and open spaces that you personally use? (Please circle one)

   Very good Good Average Below average Poor

4. Do you have any trouble going to the parks and open spaces ? (Please tick one)

   ___ Yes ___ No

4a. If you answered yes could you please explain.

   _____

5. If there is a fee to use the facilities in the parks and open spaces, does that discourage you from using them? (Please tick one.)

   ___ Yes ___ No

6. On a scale of one to three (with one being the most important issue to you and four being the least important), could you rank the following issues.

   ___ Condition of the equipment

   ___ Personal safety

   ___ Ease of access

7. On a scale of one to four (with one being the activity you enjoy the most and four being the activity you enjoy the least), could you please rank these following activities.

___ Watching television

___ Outdoor Activities

___ Going to the theater or movies

___ Playing computer or video games

8. What is your primary reason for using the parks and open spaces?

___ Recreational sports. Please name_____

___ Sports league. Please name_____

___ Walking the dog

___ Taking children to the playground

___ Public gardens

___ Others. Please specify _____

9. Do you bring your pets to the park?
___ Yes ___ No

Short Answers

1. What do you enjoy the most about the parks and open spaces that you use within Merton?
2. What are the things about the parks and open spaces located within Merton that you would like to see changed?
3. If you do not go to the parks and open spaces within Merton often, could you please specify your reasons?

APPENDIX C: SURVEY RESULTS

1. Gender.

Male	54%
Female	46%

2. Parental Responsibility.

Yes	32%
No	68%

3. Age.

10 to 15	28%
16 to 25	13%
26 to 35	20%
36 to 45	13%
46 to 55	9%
56 to 65	7%
Over 65	10%

4. Which area of Merton do you live in?

Wimbledon	123
Raynes Park	110
Morden	111
Mitcham	103

5. Do you go to the parks:

Alone	29%
In groups	61%
Both	10%

6. Safety Issue

Poor	3.65%
Below Ave.	12.50%
Average	38.54%
Good	35.94%
Very good	8.33%

7. Condition of the recreational equipment.

Poor	4.69%
Below Ave.	12.24%
Average	42.45%
Good	32.81%
Very good	4.95%

8. Overall Grade of PAOS.

Poor	1%
Below Ave.	7.81%
Average	38.02%
Good	41.14%
Very good	10.95%

9. Trouble going to the PAOS.

Yes	5%
No	95%

10. Would a fee to use the facilities in PAOS discourage you from using them?

Yes	47%
No	53%

11. Rank the following PAOS issues.

	Condition of the equipment	Personal safety	Ease of access
Most important	22.10%	71.31%	16.11%
Important	53.04%	22.13%	22.78%
Least important	24.86%	6.56%	61.11%

12. Rank the following activities.

	Watching television	Outdoor Activities	Theatre or movies	Playing computer or video games
Most important	30.25%	54.14%	17.70%	8.47%
Important	23.25%	27.35%	37.08%	10.45%
Less important	30.53%	12.43%	29.21%	21.47%
Least important	15.97%	6.08%	16.01%	59.60%

13. Primary reason for using the PAOS.

Recreational sports	16%
Sports league	9%
Walking the dog	31%
Taking children to the playground	20%
Public gardens	14%
Others	10%

14. Pets.

Yes	36.31%
No	63.69.%

APPENDIX D: INDIVIDUAL PARKS RESULTS

Note: The answers are on a scale of 1 - poor to 5 - very good

Beverley Meads	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.67	3.22	3.22
Standard Deviation	0.50	0.67	0.83

Cannizaro Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.57	3.14	3.57
Standard Deviation	1.13	0.69	0.98

Cannon Hill Common	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3	2.60	2.83
Standard Deviation	0.63	1.14	0.41

Dundonald Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.5	3.83	3.83
Standard Deviation	0.67	0.578	0.58

Figges Marsh	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.36	2.18	2.91
Standard Deviation	0.67	0.75	0.83

Garfield Rec. Ground	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	2.92	3.08	3.33
Standard Deviation	1.00	1.00	0.98

Haydons Road Rec.	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.22	3.10	3.56
Standard Deviation	1.17	0.99	0.84

Holland Gardens	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.50	2.67	3.67
Standard Deviation	0.84	1.03	0.82

John Innes Park and Rec. Ground	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.74	3.79	4.21
Standard Deviation	0.81	0.92	0.71

Joseph Hood Rec. Ground	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.43	3.57	3.43
Standard Deviation	0.60	0.55	0.65

King George Playing Field	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	2.33	2.67	3.17
Standard Deviation	0.82	0.82	0.41

Lavendor Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.22	3.28	3.42
Standard Deviation	0.55	0.89	0.77

Morden Hall Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3	3.17	3.54
Standard Deviation	0.91	0.39	0.88

Morden Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.48	3.27	3.78
Standard Deviation	0.95	0.73	0.79

Morden Rec. Ground	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	2.89	2.33	2.55
Standard Deviation	1.45	1.22	1.59

Mostyn Gardens	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.69	3.19	3.50
Standard Deviation	0.70	0.83	0.51

Ravensbury Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	2.60	2.40	3.00
Standard Deviation	0.84	0.97	0.94

Wimbledon Park	Safety Issue	Condition of the Equipment	Overall Grade of the Park
Average	3.88	3.69	4.06
Standard Deviation	0.79	0.90	0.72

APPENDIX E: DATA COLLECTION LOG

Second Week	
Sunday May 23	Surveyed Wimbledon Park, 10 completed questionnaires were obtained during the late afternoon, pleasant weather
Wednesday May 26	Surveyed Dundonald Recreational Ground, 10 completed questionnaires were obtained during the late afternoon, poor weather(rain)
Thursday May 27	Surveyed the Merton Civic Centre, approximately 60 completed questionnaires were obtained throughout the day, indoors
Friday May 28	Surveyed Haydons Road Park 30 completed questionnaires were obtained during the afternoon, pleasant weather
Third Week	
Tuesday June 1	Surveyed Wimbledon Park 30 completed questionnaires were obtained during the afternoon, fair weather(windy) Dropped off 15 questionnaires at shops to employees and owners near Wimbledon Station during the late afternoon
Wednesday June 2	Surveyed Cannizaro Park 20 completed questionnaires were obtained during the afternoon, pleasant weather
Thursday June 3	Surveyed Dundonald Park 30 completed Questionnaires were obtained during the afternoon, pleasant weather Surveyed the shops near South Wimbledon Station 20 Questionnaires were dropped off to shop owners and employees, indoors
Fourth Week	
Sunday June 5	Surveyed Cannon Hill Park 15 completed questionnaires were obtained during the late afternoon, fair weather(windy)

Monday June 6	Surveyed Joseph Hood Recreational Ground 10 completed questionnaires were obtained during the afternoon, poor weather(cold and windy)
Thursday June 10	Surveyed John Innes Park 10 completed questionnaires were obtained during the early afternoon, pleasant weather Surveyed Mostyn Gardens 20 completed questionnaires were obtained during the late afternoon, pleasant weather
Friday June 11	Surveyed King George's Playing Field 5 completed questionnaires were obtained during the late afternoon, poor weather(rain)
Saturday June 12	Surveyed Joseph Hood Park 15 completed questionnaires were obtained during the early evening, poor weather(rain)
Fifth Week	
Monday June 14	Surveyed Morden Park 15 completed questionnaires were obtained during the early afternoon, pleasant weather Surveyed Morden Shopping Areas 15 questionnaires were handed out to consumers, indoors
Tuesday June 15	Surveyed Raynes Park Shopping Areas 20 completed questionnaires were obtained during the early afternoon, pleasant weather
Wednesday June 16	Surveyed Lavender Park 25 completed questionnaires were obtained during the late afternoon, pleasant weather
Thursday June 17	Surveyed Tamworth Recreational Ground 20 completed questionnaires were obtained during the afternoon, pleasant weather
Sixth Week	
Monday June 21	Surveyed Figges Marsh 15 completed questionnaires were obtained during the afternoon pleasant weather

Tuesday June 22	Surveyed Beverly Park 15 completed questionnaires were obtained during the late afternoon, pleasant weather
Friday June 25	Surveyed Mitcham Common 40 completed questionnaires were obtained throughout the day, pleasant weather

APPENDIX F: Parks and open spaces in the London Borough of Merton

Key to facilities					
One O'Clock Club	OC	Tennis Courts	TC	Notable Trees/Woodland	T
Play Area	PA	Hockey	H	Water Feature	WF
Car Park	CP	Football	FB	Ornamental Gardens	OG
Café	CP	Cricket	CR	Padding Pool	PP
Public Conveniences	WC	Rugby	R	Nature Conservation Interest	NC
Bowling Green	BG	Pavilion	P		

		OC	PA	CP	C	WC	BG	TC	H	FB	CR	R	NC	T	WF	OG	PP	P	
1	Abbey Recreation Ground		*	*						*	*								
2	All Saints Recreation Ground		*																
3	Bennets Hole												*	*	*				
4	Beverley Meads												*	*	*				
5	Commons Park			*						*	*	*							
6	Cannizaro Park					*							*	*	*	*			
7	Cannon Hill Common				*								*	*	*				
8	Cannons Recreation Ground and Mitcham Sports Ground		*	*		*	*	*		*				*	*	*			
9	Cherry Wood												*						
10	Church Lane Playing Fields																		
11	Colliers Wood Recreation Ground	*	*	*		*		*		*							*	*	
12	Cottenham Park		*					*		*	*			*				*	
13	Cranmer Green									*			*	*	*				
14	Cricket Green										*			*					
15	Drax Playing Fields			*				*		*	*								
16	Donnelly Green		*																
17	Dundonald Recreation Ground		*				*	*		*	*							*	
18	Durnsford Recreation Ground		*										*	*	*				

		OC	PA	CP	C	WC	BG	TC	H	FB	CR	R	NC	T	WF	OG	PP	P	
19	Edenvale Open Space	*	*																
20	Fair Green																		
21	Figges Marsh									*									
22	Fishponds Wood												*	*	*				
23	Garfield Recreation Ground		*																
24	Haydons Road Recreation		*	*		*	*	*		*	*								
25	Holland Gardens					*		*						*		*			
26	John Innes Park			*		*	*	*						*	*	*			
27	John Innes Recreation Ground									*	*								
28	Joseph Hood Recreation Ground		*	*		*	*	*	*	*	*						*	*	
29	Kendor Gardons															*			
30	King Georges Playing Fields		*	*				*		*	*						*	*	
31	Lavendor Park	*	*	*			*	*		*								*	
32	Lewis Road Recreation Ground		*																
33	Long Bolstead Recreation Ground		*																
34	London Road Plying Fields		*										*	*	*				
35	Lynmouth Gardens																		
36	Merton Green Walk												*						
37	Miles Road Playing Fields		*																
38	Mitcham Common									*			*	*					
39	Morden Hall Park			*	*	*								*	*				
40	Morden Park		*	*		*				*	*		*	*	*		*	*	
41	Morden Recreation Ground		*	*			*	*		*	*	*		*					
42	Morton Green		*										*	*					
43	Moisten Gardens		*																
44	Myrna Close												*		*				
45	Nelson Gardens															*			
46	Nursery Road Playing Fields								*	*	*	*							
47	Oakleigh Way Recreation Ground		*	*				*					*						
48	Pollards Hill Recreation Ground		*							*			*						
49	Prince Georges Playing Field																		

		OC	PA	CP	C	WC	BG	TC	H	FB	CR	R	NC	T	WF	OG	PP	P	
50	Pi Brook Nature Reserve																		
51	Ravensbury Park		*	*	*	*							*	*	*		*		
52	Raynes Park Sports Ground					*			*	*	*	*						*	
53	Riverside Walk												*						
54	Rock Terrace Recreation Ground	*	*							*									
55	Rowan Road Recreation Ground		*			*		*									*		
56	South Park Gardens													*		*			
57	Sherwood Recreation Ground		*					*										*	
58	Sir Joseph Hood Memorial Playing Fields		*	*			*	*		*	*		*				*	*	
59	Tamworth Recreation Ground		*	*	*	*											*		
60	Three Kings Piece			*						*									
61	Wandle Meadow Nature Park												*						
62	Wandle Park		*	*										*					
63	Wimbledon Common			*									*	*					
64	Wimbledon Park	*	*	*	*	*	*	*		*	*		*	*			*		
		OC	**PA**	**CP**	**C**	**WC**	**BG**	**TC**	**H**	**FB**	**CR**	**R**	**NC**	**T**	**WF**	**OG**	**PP**	**P**	

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IQP/MQP SCANNING PROJECT

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