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# Maintenance, improvement, and supervision of parks and playgrounds in Davao City: An evaluative study

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## Abstract

This descriptive study aimed at determining the span of implementation of the City Environment and Natural Resources Office's Parks and Playgrounds Division's objectives. Researcher made-validated questionnaire, Park Maintenance Standard (2000), and caretakers' interview were used to know the level of maintenance, improvement, and supervision of the five parks and playgrounds. The first group of respondents perceived that maintenance, improvement, and supervision of the parks and playgrounds are fairly evident. The Park Maintenance Standard System (2000) reveals that the People's Park has the most number of complied areas while others are not compliant in either one or more of the following areas; walk ways, hard surfaces, irrigation, turf care, fertilization, restroom, lightings, signage, repair, floral planting, drinking fountains, clinic, and security. However, only trash receptacle is complied by all parks and playgrounds. The second group of respondents reveals that turf care is generally good except at Magsaysay park. Watering of plants using the manual hose is done regularly except at Rizal and Magsaysay parks. Litter control and fertilization are excellently maintained in all parks while lightings and repairs are poorly observed in four parks. Flowering plants are not planted in four parks and only Osmena and People's parks have usable toilets.

**Keywords:** Maintenance; Improvement; Supervision; Parks and Playgrounds, Davao City, Philippines

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## **1. Introduction**

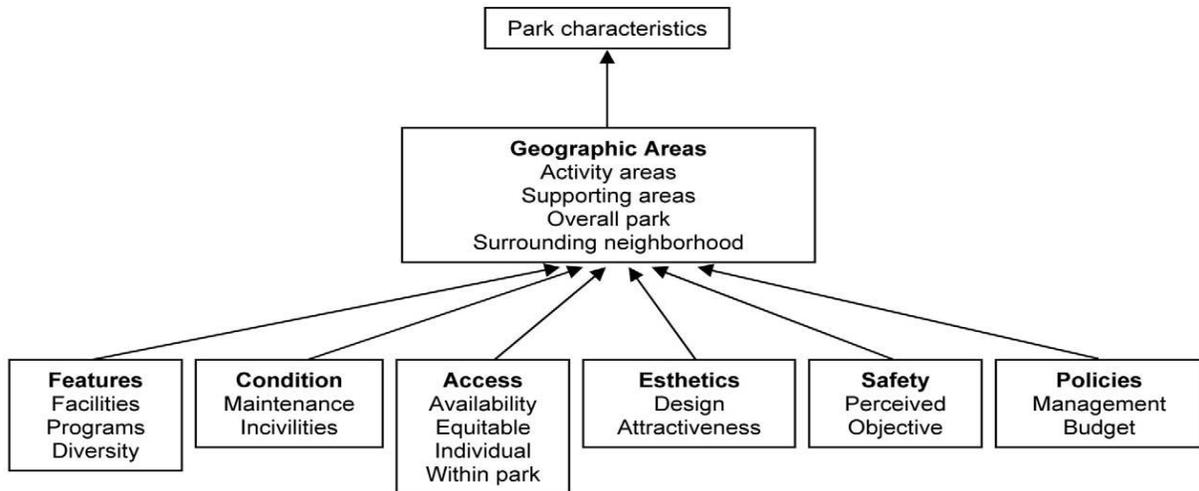
Parks are among the oldest places for using leisure time. All ancient communities had spaces where people could gather, assemble, sit in the sunshine, talk, play, and watch the passing show. But almost always, one of the greatest problems in managing parks now is the same as it always was even in the open spaces of the ancients – reconciling the conflicting interests of sometimes disparate groups who use them, those who go for peace and quiet with those who want boisterous play, dog walkers and picnickers, young and old, garden historians and sportsmen, demonstrators with people wanting and undisturbed walk (Welch, 1995).

Moreover, Mowen (2010) averred that emerging research suggests that park conditions, maintenance, policies and programs influence park use and physical activity levels. However, few studies examine the efficacy of park improvements on park visitation and physical activity. Hence, the role of park policies, supervision and programs in shaping park-based physical activity is unclear. He further stated that future research should address these knowledge gaps so that park planners and staff, policy groups, governing bodies and advocacy organizations can better leverage the impact of parks in shaping a more physically active people.

In Davao City, the City Planning Department is massively stretching its arms to evaluate the efficacy of the local government programs to its people including the parks and playgrounds. Thus, the city government through the Parks and Playgrounds Division has intensified efforts in improving the conditions of the major parks and playgrounds in the city to give the citizens space for recreation and leisure. However, it was observed that endeavor of improvement remained inefficient because of the lack of strategic plans and priorities. Though the condition of some parks and playground are moderately good the fact remains that in general their maintenance, improvement, and supervision remain bungling.

## **2. Framework**

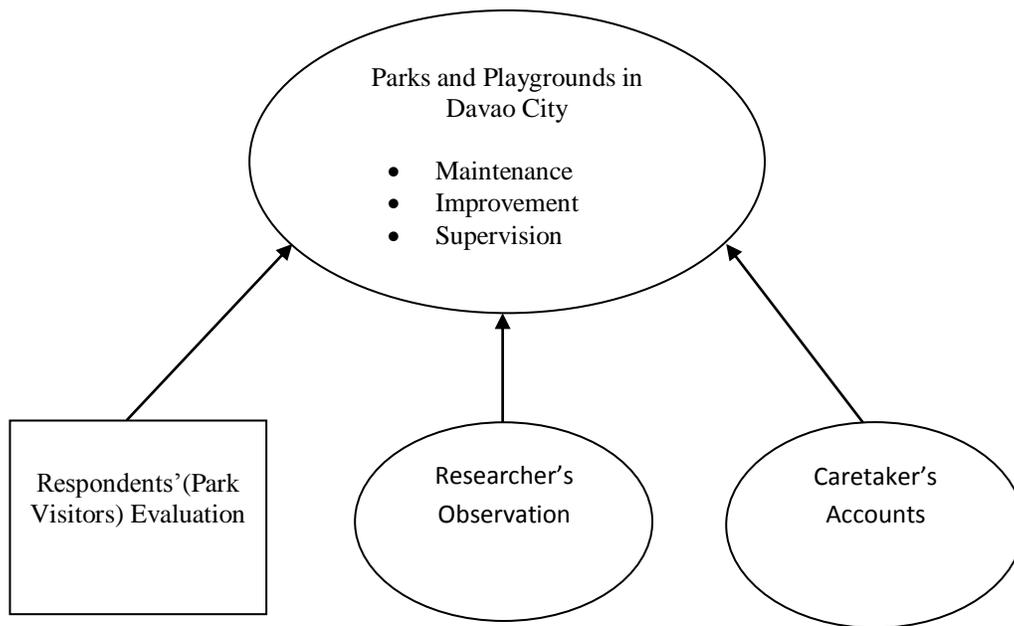
To concretize and provide adequate reference in formulating this evaluative study, the researcher sought a theorist that would give emphasis on the goals and objectives for the formulation of parks and recreational areas. This research is anchored on the theory of Correlates of Parks Use and Park Physical Activity Levels by Bedimo-Rung et al. (2005). They examined the constraints and barriers to leisure activities and park utilization. Common reasons for not engaging in park-related activities include lack of time, money, personal health, information, transportation and access, safety concerns, maintenance and/or inadequacy of park facilities, and the lack of leisure companions. The proponents' theory favored Scott and Jackson (1996) who found that the most preferred barrier-reduction strategies of parks and playgrounds users were "making parks safer," "providing more information about parks," "providing more park activities," and "building parks closer to home."



**Figure 1.** Park characteristics

In this model, the correlates of park use are separated into those concerning the individual characteristics of users and potential users (at both the intra- and interpersonal levels) and those concerning park physical and policy environments (at the structural level). The constraints mentioned above can fall into either of these two categories.

2.1. Conceptual framework



**Figure 2.** The Conceptual Framework of the study

In this conceptual framework, condition of maintenance, improvement, and supervision of the five (5) parks and playgrounds are determined by the park's visitors, researcher's observation, and caretakers' accounts.

### **3. Objectives**

This evaluative study aimed at determining the span of implementation of the City Environment and Natural Resources Office (CENRO) particularly the Parks and Playgrounds Division's objectives.

Specifically, this study sought to answer the following questions:

1. What is the demographic profile of the respondents in terms of;
  - 1.1. age bracket;
  - 1.2. location?
2. What is the level of maintenance of the Parks and Playgrounds as indicated by:
  - 2.1. restroom;
  - 2.2. support services;
  - 2.3. landscape features;
  - 2.4. waste management;
  - 2.5. and safety?
3. What is the level of improvement of the Parks and Playgrounds as indicated by:
  - 3.1. restroom;
  - 3.2. support services;
  - 3.3. landscape features;
  - 3.4. waste management;
  - 3.5. and safety?
4. What is the level of supervision of the Parks and Playgrounds as indicated by:
  - 4.1. restroom;
  - 4.2. support services;
  - 4.3. landscape features;
  - 4.4. waste management;
  - 4.5. and safety?
5. What is the maintenance, improvement, and supervision conditions of the parks and playgrounds in Davao City according to:
  - 5.1. Researcher's observation;
  - 5.2. Caretakers accounts?

#### 4. Methodology

This study utilized the descriptive method. This method was used to determine the level of maintenance, improvement, and supervision among the five parks and playgrounds in Davao City. Moreover, the descriptive method is suitable to this research because its purpose is to make an objective description of a limited set of phenomena and also to determine whether the phenomena can be controlled through certain interventions (Gall et al., 2003). Likewise, descriptive method includes what is the present situations concerning the nature of the condition, individuals, class or events which requires procedures of induction, analyses, classification, enumeration and measurement. Further, the researcher used the descriptive method because it determines the nature of prevailing conditions, personal situational environment, and intellectual factors and practices which may assist the researcher to seek accurate descriptions and findings of the conditions in the selected parks under study.

In this study, the researcher made the descriptions of the parks and playgrounds under study by gathering the perceptions of the visitors, by observing using the Park Maintenance Standard System (2000) and by interviewing the caretakers of each park. The visitors' perceptions were gathered through a questionnaire while the researcher's observation and caretakers accounts were done through an observation sheet and interview respectively.

#### 5. Research respondents

The first group of respondents of this study was the constituents visiting the five parks and playgrounds under study. There were a total of 100 respondents; specifically 20 respondents were taken from each parks and playgrounds. Before the respondents were given the questionnaires, they were asked first as to how many times they have been visiting the parks. The researcher made sure that these respondents have visited the place for more than once. For example, in Rizal and Osmena parks, some of the respondents were the masseurs, the nail experts, and their customers. In People's parks and Magsaysay parks were the joggers, students and youths who relished the sea breeze and those who enjoyed the company of their friends. While in the Freedom parks were visitors who choose to unwind after their lunch from the nearby cafeterias and the children and youths who appreciated the coolness of the breeze under the shadows of the trees. These respondents were identified because the researcher believed that they had the first-hand knowledge in the maintenance, supervision, and improvement of the parks and playgrounds.

Moreover, 59 of the respondents were children and young adults (15 – 25 years old), 32 were adults (26 – 45 years old), and 9 (46 – 60 years old) were in late adulthood. This implies that most visitors of the parks and playgrounds were children and youth (15 – 25 years old).

The first group of respondents was chosen using systematic random sampling technique. This sampling according to Pepe (n.d.) is done by selection every *k*th item in a population after the first item is chosen at random from the first *k* item. Using this sampling, the researcher identified first the item and designed the system. Saifuddin (2013) averred that in simple systematic random sampling, each element has an equal

probability of being chosen from a list of all population units (sample  $n$  from  $N$  population). Both authors concurred that in determining the sample size ( $n$ ), the total number of items in the population is divided ( $N$ ) by sample size ( $n$ ). Then, the decimals are rounded. The quotient is denoted by  $k$ . Then put the population into a sequential order, ensuring the attribute being studied. Then, selection of random number  $x$  between 1 and  $k$  is done. Lastly, the first sample item is assigned as the  $x$ th; then selection of every  $k$ th item is done.

This study targeted a sample size of 10% of the estimated average number of park goers in ordinary days which is 200. This means 20 individuals who are expected visitors of each park and playground considered in the study. To elaborate further, there was an estimated 200 potential respondents, thus 200 divided by 10 equals 20. It was in this context that a random number between 1 and 10 was made. The researcher had randomly picked number 8. Thus, the counting started in the 8<sup>th</sup> person the researcher met in the park and playground. And then every 10<sup>th</sup> person was counted as next respondent until the 20 target number of respondents was accomplished or completed. The actual gathering of the quantitative data was done in one day per park and playground.

The second batch of respondents was the caretakers of the parks. There were six (6) male and female key informants who have been working in their assigned parks and playgrounds for at least five (5) year to 34 years. Questions were patterned after the Maintenance Standard Classification System (2000). Additionally, the respondents for the interview were purposely selected by the researcher.

The survey questionnaires were given to the first group of respondents of the five (5) parks and playgrounds on September 14 to September 18, 2012. On the other hand, interview with the second group of respondents was conducted on February 27, 2013. Additionally, researcher's observation was conducted from September 10 - February 20, 2013. Frequent visits were done by the researchers to monitor the conditions of the parks and playgrounds.

## 6. Research instruments

The first instrument utilized in this study was the researcher-made questionnaires. It followed a five-point Likert scale. Additionally, the questionnaire employed the five-point system. The following were the measurements and equivalences: 5-Strongly Agree, 4-Agree, 3-Moderately Agree, 2-Disagree and 1-Strongly Disagree. Part I of the questionnaire drew out the demographics profile of the respondents while Part II obtained the perception of the respondents on the parks and playgrounds maintenance, improvement, and supervision.

Specifically, the questionnaire was subdivided into indicators such as restroom condition, support services, landscape features, waste management, and security. Moreover, the instrument was validated by the panel of experts namely Dr. Adrian Tamayo, Point-person for Quantitative Research, Dr. Maria Linda B. Arquiza, AVP for Research and Publication Center, and Dr. Renan Limjuco, Director of Research at the University of the Immaculate Conception.

The scale in evaluating the level of perception of the respondents in the maintenance, improvement, and supervision of parks and playgrounds was limited by the following parameters.

**Table 1.** List of Parameters

<b>Range</b>	<b>Description Level</b>	<b>Description Interpretation</b>
<b>4.50 – 5.00</b>	<b>Very High</b>	This indicates that parks' and playgrounds' maintenance/improvement/supervision is very evident most occasions.
<b>3.50 – 4.49</b>	<b>High</b>	This indicates that parks' and playgrounds' maintenance/improvement/supervision is relatively evident in many occasions.
<b>2.50 – 3.49</b>	<b>Moderate</b>	This indicates that parks' and playgrounds' maintenance/improvement/supervision is fairly evident in some occasions.
<b>1.50 – 2.49</b>	<b>Low</b>	This indicates that parks' and playgrounds' maintenance/improvement/supervision is seldom evident in few occasions
<b>1.00 – 1.49</b>	<b>Very Low</b>	This indicates that parks' and playgrounds' maintenance/improvement/supervision is not evident at all.

The second instrument which was used in the interview was the Park Maintenance Standard Classification System (2000). The instrument focused on the eleven (11) areas. To make the questionnaire understandable, the researcher made the instrument into a template.

## **7. Results and discussion**

The analysis of data taken from the respondents reveals the following findings:

1. The total average mean for the level of maintenance was 3.38 or Moderate with specific mean score of the following respective variables: restroom 3.2 or moderate; support services 2.8 or moderate; landscape features 3.8 or high; waste management 3.9 or high; and safety 3.5 or high.

2. The total average mean for level of improvement was 3.2 or moderate with the specific mean score of the following respective variables: restroom 3.0 or moderate; support services 2.6 or moderate; landscape features 3.7 or high; waste management 3.8 or high; and safety 3.5 or high.
3. The total average mean for level of supervision was 3.1 or moderate with the specific mean score of the following respective variables: restroom 2.9 or moderate; support services 2.7 or low; landscape features 3.7 or high; waste management 3.5 or high; and safety 3.3 or moderate.

The analysis of information using the Maintenance Standard System (2000) reveals the following findings: Among the five parks and playgrounds under study, the People's Park has the most number of complied areas. Likewise, trash receptacle was the only aspect complied by all the parks and playgrounds. In other aspects, four parks were compliant with the play lots, walk ways, and hard surfaces; however, moderate improvement was needed to these areas. In irrigation, three parks were compliant while in turf care, fertilization, and restroom, two parks were compliant. In lightings, signage, repair, and floral planting, only People's park was compliant the rest were deficient. Finally, park features like drinking fountains, clinic, and security were needed in four parks.

The analysis of information taken from the parks' and playgrounds' caretakers uncovers the following findings: The turf care was generally good among the four parks and playgrounds except at Magsaysay park. Fertilization of plants and shrubs in four parks were done using chicken manure and compost; however such was not done at the Magsaysay park. Watering of plants using the manual hose was done in three parks except at Rizal and Magsaysay parks. Litter control was excellently maintained in all parks. Sweepers had shifting schedule for cleaning. Park lightings and repairs were poorly observed in four parks. Likewise, lamp posts were either abandoned or had no bulbs. Efforts to provide lightings in the park remained futile due of technical problems. Flowering plants were not planted in four parks. It was noted that flowering plants were only intended to be planted along the islands of the city. Lastly, only Osmena and People's parks had usable toilets.

## 8. Conclusions

Based on the above-mentioned findings, the following conclusions are drawn.

1. The respondents believed that the level of maintenance, improvement, and supervision among the five (5) parks and playgrounds in Davao City is moderate. This means that parks and playgrounds' maintenance/improvement/supervision is relatively evident. Moreover, restrooms and support services were rated as moderate while landscape features, waste management, and safety were assessed as high. The results indicate that the respondents are neither satisfied nor disappointed with the maintenance, improvement, and supervision of the five (5) parks and playground in the Davao.
2. The researcher found out that most of the parks under study were not fully compliant with the Parks Maintenance Standards System (2000). Thus, many visitors' had suggested some measures to do like

making the park lighted during the night, repair of toilets or putting of toilets, and installation of some parks' features like drinking fountain. However, it is worth noticing that among the five (5) parks under study, only the People parks has the most number of complied areas. It was interesting to note that only trash receptacle, which equates to waste management system of the parks and playgrounds, was the only aspect complied by all parks and playgrounds. This excellent waste management of parks and playgrounds favors the view of Wise Geek (2012) which averred that 'the main type of park maintenance that usually needs to be one regardless of the variety of park is trash pickup and clean up. This also coincides with the first group's perceptions that waste management (cleanliness) among the five parks and playgrounds were excellent. Further, moderate improvements are needed on the play lots, walk ways, and hard surfaces in the four parks and playgrounds. Also, improvement on irrigation system specifically the materials used required attention. Additionally, turf care, fertilization, and restroom, need vital consideration in the three parks. More attention is needed in the parks' lightings, signage, repair, and floral planting in the four parks and playgrounds. Additionally, park features like drinking fountains, clinic, and park security were lacking in four parks. The researcher believed that the Park and Playground section is doing its best to make all the parks and playgrounds beautiful (CENRO, 2011) as written in its goals and objectives that it 'supervises and sees to it that the structures conform to the specification or standards set by the proper authorities'; however, with the researcher's findings, it is safe to say that the department's has failed to perform its mandate.

3. It was found from the narratives of the caretakers of the parks and playgrounds that the turf care was generally good among the four parks and playgrounds except at Magsaysay park. Litter control was excellently maintained in all parks. Sweepers had shifting schedule for cleaning. Fertilization of plants and shrubs in four parks were done using chicken manure and compose; however such was not done at the Magsaysay park. Regular irrigation of plants using the manual hose was done in three parks except at Rizal and Magsaysay parks. Unfortunately, park lightings and repairs were poorly observed in four parks making them very dark at night. Likewise, lamp posts were either abandoned or had no bulbs. The caretakers in four parks and playgrounds unanimously agreed that efforts to provide lightings in the park remained futile due of technical problems. Harnik et al. (2011) assumed that dark parks and playgrounds are not safe; thus, invite criminals. They further averred that more bulbs mean fewer criminals and vandalism. The caretakers also revealed that flowering plants were not planted in four parks. Caretakers from Magsaysay park divulged that flowering plants were only intended for the islands along the city. Bedimo-Rung et.al. (2005) believed that 'having something beautiful or interesting to look at while exercising or visiting a park can be a powerful motivator of physical activity. Landscape (n.d.) on the other hand found that 'horticulture therapists have discovered that gardening provides a form of emotional expression and release, and it helps people connect with others and plants lower blood pressure, reduce muscle tension related to stress, improve attention and reduce feelings of fear and anger or aggression'. Lastly, only Osmena and People's parks had usable toilets.

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Glory to the all Davaoenos!

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