

CLASSIFICATION AS ANALYTICAL TOOL FOR RECREATION PLANNING

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This contribution demonstrates how classification procedures, based on the identification of needs, can enhance the effectivity of recreation planning. The use of classification procedures in recreation planning is briefly examined and an overview of several classification procedures is given. From this discussion, certain deductions are made about the nature and use of classification as an analytical tool, and reasons are given for the necessity of an approach that uses the identification of needs as a guiding principle for classification procedures. The taxonomy of Bradshaw (1972) was used as the basis for determining the recreation needs of specific communities. This taxonomy accommodates a variety of variables such as the opinions of respondents, authorities and experts and had been modified by adopting appropriate definitions of needs. Five categories of needs were used. The paper illustrates by means of an exam-

ple how recreational facilities can be classified on the basis of the determination of needs and that this methodology can form the basis for planning which seeks to satisfy recreation needs. Planning can then proceed more effectively, since it can be done in conjunction with a classification based on the community's specific needs, and recreation provision can be made in a more successful and more cost-effective way.

Hierdie bydrae toon aan hoe klassifikasie op grond van behoeftes die effektiwiteit van rekreasiebeplanning kan verhoog. Die gebruik van klassifikasie in rekreasiebeplanning word kortliks bespreek en 'n oorsig van 'n aantal klassifikasiestelsels word gegee. Hieruit word sekere afleidings oor die aard en aanwending van klassifikasie gemaak, en die nodigheid van behoef-

tebepaling as grondslag vir klassifikasie word toegelig. Die taksonomie van Bradshaw (1972) is as basis gebruik vir die bepaling van behoeftes in bepaalde gemeenskappe. Die taksonomie, wat verskeie veranderlikes soos die menings van respondente, owerhede en kundiges kan akkommodeer, is op grond van ander toepaslike definisies van behoefte aangepas om vyf kategorieë behoeftes in te sluit. Deur middel van 'n voorbeeld word aangetoon hoe rekreasiefasiliteite op grond van 'n behoeftebepaling geklassifiseer kan word en dat die metode as basis gebruik kan word vir beplanning, gerig op die bevrediging van rekreasiebehoeftes. Beplanning geskied nou meer effektief omdat beplan word met behulp van 'n klassifikasie op grond van die spesifieke gemeenskap se behoeftes. Rekreasievoorsiening kan aan die hand hiervan meer doeltreffend en koste-effektief geskied.

1 INTRODUCTION

The ultimate aim to be achieved in respect of planning for recreation is the effective provision of recreation opportunities for a specific community, be it at local, regional or national level. This would depend on adequate cognizance being taken of the factors that influence recreation. According to Burton (1971), authorities and organizations are often misled by unsystematic presentation of data.

Recreation planning does not depend solely on determining suitable localities for recreational pursuits; in order to create a meaningful recreation pattern, all activities within a region ought to be integrated. Compatibility and common characteristics among

recreational facilities and activities ought to be identified, so that facilities can be appropriately classified (Hugo 1987). Recreation, however, has to do with satisfying life's basic needs (Harvey 1973, Van Doren 1974, Newman 1983). The effectiveness of the planning, together with the merit of the classification system used, have to be assessed against the degree to which the community's recreation needs are to be met.

In all disciplines, it is important that voluminous data be organized and categorized. Classification as a procedure can serve two purposes: it can either be the preliminary organization of data to precede analysis, or, alternatively, it can be the result of analysis. Classification implies the

recognition of patterns in and organization of the data under consideration. The suitability of a particular classification procedure is determined by the nature of the data being classified and also by the purpose and nature of its methodology. Numerous classificatory systems that have been either specifically designed, or appropriately adapted, for use in planning for recreation, are documented in relevant literature.

This contribution demonstrates how classification procedures, based on the identification of needs, can enhance the effectiveness of recreation planning. In the first part of the paper, the use of classification procedures in recreation planning is briefly examined and an overview of several classification procedures is given. From this

discussion, certain deductions are made about the nature and use of classification as an analytical tool, and reasons are given for the necessity of an approach that uses the identification of needs as a guiding principle for the classification procedures. Finally, by means of an example, this paper illustrates how recreational facilities can be classified on the basis of needs determination and advocates that this methodology then be used as the basis of any planning that has recreation needs in mind.

2 UTILIZATION OF CLASSIFICATION IN RECREATION PLANNING

Although the value of classification as an analytical tool is widely recognized, it does seem that to date it has largely been applied in a somewhat *ad hoc* way. Numerous classification systems are cited in recorded studies, but, in several instances it appears that classification has been used merely for the sake of classification and that not much cognizance has been taken of practical implementation.

The traditional approach to recreation planning makes use of quantitative yardsticks in respect of the site, the development thereof or a programme therefor, which, owing to the area itself, or experience of similar areas, has been classified in terms of quantity instead of quality. The quantitative data so often used include information such as the time spent on recreational activities, the nature and frequency of recreational excursions, daily and annual attendance figures, the length of the season *et cetera*. Although useful as a first step, this cannot be used to maximum effect if it only comprises meaningless figures which do not offer solutions (Gold 1980).

Recreational facilities and activities are also classified according to qualitative criteria, but, according to Gold (1980), this type of classification has so far met with limited success. Refinement of such measures requires considerable and substantial research. These criteria assume an actual or observed qualitative dimension and have a direct relationship with the recreation experience, the site and the community.

3 CLASSIFICATION OF RECREATIONAL FACILITIES AND ACTIVITIES

Not all open space is necessarily used for recreation. Gold (1980) classifies the use of open space as follows:

Mineral exploitation (e.g. for agriculture, mining and energy production); environmental and ecological balance (fish and wildlife preserves, significant geological features, spectacular view sites); public health and safety (flood control, waste disposal, flight corridors); community development and social benefit (parks and recreational areas, land use, buffer zones); and urban form (growth checks, circulation corridors, areas set aside for future expansion).

Application of these categories shows clearly that recreational areas have distinct and special requirements. Although this taxonomy could imply possible recreational use of open space (for example, flight corridors for aircraft could be utilized for recreational activities), such areas cannot be equated with land set aside primarily for recreational purposes. The uniqueness of the open spaces needed for recreation demands distinctive classification procedures.

The classification of recreational facilities and activities can be approached from different angles. Several of these points of reference will now be discussed, together with some of the most important classification systems already developed for recreation planning.

3.1 Basic classification

The most rudimentary form of classifying recreational activities is simply to distinguish between indoor and outdoor recreation. Outdoor activities are carried out solely out of doors, not under cover, in contrast with those conducted indoors, including cinema and concert performances. Outdoor recreation falls clearly into two distinct subdivisions: the formal, such as organized sport and certain group activities, and various forms of informal outdoor activities.

A particularly useful taxonomy of recreational areas frequently cited in relevant literature has been developed by Clawson & Knetsch (1966). Three types are distinguished: consumer orientated (artificially created facilities); resource orientated (using the natural resource base); and intermediate areas.

3.2 Classification of recreational environments

Such basic classifications can be further refined, for example the classification of outdoor recreational activities according to the environment by Hugo & Henning (1986): inland water areas, the sea, snow and so on. Buiten (1978) takes the matter further by distinguishing between primary and secondary areas and classifies recreational areas as follows:

- The primary (natural) environment: classification is determined by location (local, regional and national areas); and according to the type of resource (nature orientated, cultural-historical and routes).
- The secondary (cultural environment): classification is defined by the type of development (caravan parks, camping sites, picnic sites); the level of development (highly developed, semi-developed, undeveloped); and by function (local, regional and national resorts).

Recreational environments can also be classified on the basis of scale, for example that of Barnardt (1988) who views holiday developments as urban, rural or natural, or as wilderness. Nordjé & Olivier (1992) place dams in various categories: those that provide for suburbanites: urban dams geared to the needs of day visitors; dams located in a district and that offer overnight facilities; intra-district dams (although these can lie within a city, they also, owing to their size, attract people from beyond the immediate vicinity); and regional dams that serve the entire region and are more popular among weekenders.

Common elements in the classification of parks, as suggested by Botha (1981) and Bannon (1976), are outlined as follows:

- Provincial parks have a threefold purpose: to preserve nature; to augment existing urban parks and facilities; and to give urban dwellers the opportunity to get away from the city for short periods. They are usually located in scenic parts of exceptional natural beauty and facilities provided relate to needs, besides other factors such as climate, travel distance and population size. In terms of distance, a two to three hour journey is usually involved and the minimum size of these parks is usually 300 Ha.
- Regional parks are situated as close as possible to the urban areas they serve, but ought to be outside the local municipal boundary. They are usually topographically aesthetic, close to water, possibly with caravan and/or camping facilities. These parks require a minimum size of 100 Ha, but the ideal size is 300 Ha.
- Town or city parks supplement suburban and children's playground parks. They offer a wide variety of recreational facilities. Location is determined by natural resources such as dams, koppies, ridges *et cetera*. The minimum size should be in the order of 100 Ha.
- Community parks serve residents who live in contiguous suburbs (four to six), and generally offer recreational facilities such as athletic tracks, public swimming pools, tennis courts, playground apparatus, *et cetera*. The service area often coincides with that of a secondary school.
- Provision of suburban parks (neighbourhood parks) is required by township development by-laws and they are a common feature in South Africa. Size and location vary from place to place, but generally they cater for children in the six to twelve year age group. The area they serve generally corresponds with that of the local primary school.
- Mini-parks are small parks where children can play and is the only space available where neighbours can meet on a day-to-day basis. In South Africa, children's play parks

of this nature tend to receive incidental attention.

3.3 Classification according to the nature of the resource being used

Effective and useful distinction can be made between recreational activities as either nature orientated or that have a sociocultural bias. The former depend on natural resources such as land, sea and air. Sociocultural activities are prevalent within and near cities, where large population numbers make recreation provision not only an economically viable proposition, but where it is also necessary to provide artificial amenities such as sports facilities, playgrounds and amusement parks. Both categories can be further subdivided.

3.3.1 Recreational activities associated with natural resources

The Outdoor Recreation Resources Review Commission (ORRRC) (1962, cited in Bannon, 1976) in the United States of America has compiled one of the most authoritative classification systems for outdoor recreation. It identifies six recreation categories:

- High-Density Recreational Areas (Class I). This category comprises a high degree of facility development, which often requires heavy investment for intensive day or weekend activities for many people, for example beach areas.
- General Outdoor Recreational Areas (Class II). Such areas are generally less intensive than Class I areas, and include areas that are relatively well developed with a view to providing a wide range of recreational activities, for example picnic sites.
- Natural Environment Areas (Class III). This group includes extensive weekend and vacation activities dependent on the quality of the natural environment, such as sight-seeing, hiking, picnicking, camping, swimming, fishing and hunting. The primary objective is to provide for a traditional recre-

ational experience out-of-doors. There might be other compatible uses of the area, such as for forestry.

- Outstanding Natural Areas (Class IV). Such areas have outstanding natural features associated with an outdoor environment that merits special attention and care in management, to ensure preservation in its natural condition. These include individual areas of remarkable natural beauty, such as waterfalls, deep canyons, *et cetera*.
- Primitive Areas (Class V). Primitive areas are described as extensive natural, wild and undeveloped areas and settings removed from the sights, sounds and odours of civilization. An essential characteristic is that the natural environment has not been disturbed by commercial use.
- Historic and Cultural Sites (Class VI). These are sites that are associated with the history, tradition or cultural heritage of national, provincial or local interest, and that are of sufficient significance to merit preservation or restoration.
- Open-space Areas (Class VII). This category refers to varied and interesting undeveloped lands that provide relief and contrast to the majority of surrounding land uses; they could differ from those uses suggested in Class IV by simply reflecting the preservation of space for visual contrast and relief, or for historic or conservation reasons.

This classification applies admirably to countries where population pressure has not yet reached alarming proportions, for example parts of the United States of America and parts of South Africa. The classification of nature-orientated activities proposed by Farrel & Van Riet (1977, cited in Hugo, 1987) corresponds closely with the above: wilderness outings (survival trails, wilderness hiking trails); the study of nature (landscape, vegetation, bird or animal life); nature conservation and tourism (game viewing); the use of nature (hunting, fishing and plant collecting); social trips (picnicking, swimming, walking); and recre-

ational excursions.

3.3.2 Sociocultural recreational activities

Recreational activities based on artificial or constructed facilities are classified by Farrel & Van Riet (1977, cited in Hugo, 1987) as follows: holiday resorts (high density) with facilities and a nature orientation; sports facilities for team sports, with accommodation for spectators (soccer and rugby); or social sports (for the individual, and which attract few spectators).

3.4 Classification of recreational activities

3.4.1 According to physical exertion

Types of recreation based on the degree of physical exertion can be divided into two (or more) categories. Active forms include mountaineering, athletics, *et cetera*; passive forms include activities such as car travel, nature observation and chess.

3.4.2 According to duration

The time spent on recreational activities can be classified as day trips, weekend excursions and vacations. Cosgrove & Jackson (1972) refer to a "time budget", which distinguishes between "free time" and "work", according to the time spent on the activities of sleeping, personal care and exercise, eating, shopping, work, domestic chores, education, culture and communication, social activities and travelling.

4 PROBLEMS ENCOUNTERED WHEN APPLYING CLASSIFICATION PROCEDURES TO RECREATION PLANNING

Striking observations emerge from the above overview of classification procedures used for recreational facilities and activities. A problem for the planner concerned with the provision of recreation amenities in urban communities, is the fact that most classification procedures cater mainly for activities associated with the natural

resource base, that is, they are nature orientated. Even if the focus is on people-orientated activities (in social and group context), these are viewed as outdoor recreations, such as picnicking. Few classification methods accommodate indoor activities and/or sports activities — these are vaguely grouped as "sociocultural", implying that all communities have access to natural resources. Only with reference to the classification of parks (Botha 1981) are sports facilities mentioned and referred to as "community parks". Farrel & Van Riet (1977, cited in Hugo 1987) refer to these as socially orientated activities. Indoor recreation receives even less recognition in existing literature.

A further salient feature of classification as a technique, is that levels or a ranking system are most commonly used as the deciding factor. This can be done according to the nature and size of the recreational facility, based on the level of provision. The development of natural resources for nature-orientated activities and the establishment of facilities for people-orientated activities can, therefore, be planned, using classification as an effective tool.

The problematic nature of planning for recreation, however, lies in the intrinsic capacity of classification procedures to promote effective recreation planning. Plans cannot be pre-tested or measured before project development takes place, at which stage the project might appear to be highly functional: for example, an artificial lake built in the barren Bushveld, or a blunder like a putt-putt course in Zamdela near Sasolburg (Wilson 1989). Efficient use of recreational resources is largely determined by need satisfaction, for which no generally prescriptive guidelines exist. Even if recreational facilities are "correctly" established according to a specific classification process, abuse or dissatisfaction on the part of the community could result if the nature, location and size of the facility do not comply with the community's needs.

However, mere classification of recreational facilities does not allow for needs determination. It is significantly obvious that needs analysis is too often ignored when classification procedures

are discussed — only Botha (1981) mentions that recreational facilities in provincial parks ought to be provided according to need. The only way to ensure that competent planning takes place, is to plan according to needs. Recreation needs within each specific community ought to be identified so that facilities are planned that are in keeping with people's requirements.

5 CLASSIFICATION OF NEEDS

As is the case with recreational facilities, relevant literature contains several examples of attempts to organize data related to needs, using classification procedures. Some researchers use a general-human-needs taxonomy that can accommodate recreation criteria. Examples are the classifications of Maslow (1954) and Farina (1969), who place needs in a hierarchical order, in which lower-order needs (e.g. food and shelter) must be satisfied before attention can be given to those of a higher order (e.g. self-actualization). Another general classification is that of Alderfer (1972), whose three needs categories correspond with Maslow's five, namely, subsistence (physiological and security needs), belonging (social needs), and development (respect, autonomy and self-actualization). Other researchers use categories more specifically related to recreation needs. Rodgers *et al* (1973) identified three types:

- 1 **Expressed needs** refer to the present level of need as reflected in recreation patterns that can be readily quantified.
- 2 **Latent needs** refer to participation that cannot materialize owing to limiting factors. When such constraints are removed, heightened participation takes place.
- 3 **Potential needs** concern future participation that flourishes under ideal circumstances.

Mercer's (1977:59) classification differentiates between two types: namely, latent and existing needs: "Latent demand represents the localized, unsatisfied need for particular types of outdoor recreational areas or facilities that, either through lack of information about the latent demand,

or for other reasons, have not been provided". According to him, existing or fulfilled needs have not been widely researched as a result of the premise that facilities that are used to their full potential clearly indicate a need for more and similar facilities.

Bradshaw's (1972:643) taxonomy of needs, which he describes as: "... a way forward in an area where precise thinking is needed for both theoretical and practical reasons", comprises four classes:

- 1 **Normative needs** are defined by officials and experts as a need in a specific situation. Standards which are acceptable in a community are measured against generally accepted minimum standards, and any one that falls short in this respect is regarded as deficient. Normative standards are not static but change over time as a result of both new information and a community's changing values.
- 2 **Felt needs** are those that a person or a group really want. Measuring such a genuine need is limited by individual perception, which is often an exaggeration since people might be asking for something that they do not really need.
- 3 **Expressed needs** exist when a felt need drives a person to act. The total expressed need is therefore seen as the total demand for a certain facility.
- 4 **Comparative needs** result when the characteristics of a group that does not have a certain service or facility are compared with those of a similar group that does have it. The need determined by this method is the discrepancy between that which exists between the facilities in two different areas. According to this, an attempt is made to standardize on provision, although provision and need do not necessarily correspond.

However, mere classification of recreation needs cannot make a contribution to planning on their own. The precise nature and extent of needs within a specific community must be determined and data has to be classified and arranged in a format that allows

for practical planning.

6 PRACTICAL APPLICATION OF CLASSIFICATION BASED ON RECREATION NEEDS

In an investigation into recreation in the black residential areas of the Gauteng Province (formerly known as the PWV region) (Wilson, 1989), Bradshaw's (1972) taxonomy was used as the basis for determining the recreation needs of specific communities. This taxonomy accommodates a variety of variables such as the opinions of respondents, authorities and experts and was adapted by the adoption of appropriate definitions of needs. Five categories of needs as presented in Table 1 were used.

A questionnaire survey was undertaken among the residents in the area, and the recreation needs they identified are listed in Table 1. For each recorded need, responses are indicated in the following categories:

- 1 **Felt needs** of the respondents, as indicated in the survey.
- 2 Needs identified by the local authorities and other knowledgeable persons, which tend to be subjective since they are based largely on **comparison** with facilities in other communities.
- 3 **Stated needs**, as established in interviews with various residents in the study area. This category is additional to Bradshaw's taxonomy and is used to verify respondents' felt needs in an attempt to differentiate between actual needs and desires.
- 4 **Expressed needs** as they emerge from participation patterns, where recreational facilities are judged on the basis of quantified recreation patterns.
- 5 **Normative needs** determined in accordance with the spatial standards of the then Department of Development Aid (South Africa, 1985). These are given as (a) the number of existing facilities in an area and (b) the number that ought to be available according to norms set by the Department of Develop-

ment Aid (South Africa, 1985). The symbol (*) in Table 1, indicates that norms are not specified.

From Table 1, the presence or absence of a need is determined and then noted in Table 2. The plus (+) and minus (-) symbols used in Table 2 indicate the presence (+) or absence (-) of a need according to the various categories used in Table 1. This means, for example, that a need that was indicated by both respondents and local authorities, that was not mentioned in interviews or indicated by means of participation patterns, but has nevertheless been accepted on normative grounds, is represented by the comprehensive symbol (+ + - - +). Owing to the large number of black residents in the Gauteng Province (3,8 million), a participation figure that appears to be very low, for example, 0,2 %, in reality actually represents almost 8 000 people. Bearing this in mind, even the lowest participation figure is regarded as a positive indication that a need exists and it is therefore represented by a (+) symbol.

Some needs cannot be measured normatively because the standards applied cannot be accommodated. Some activities, such as television viewing and gambling, are not attached to formal public facilities, whilst others, such as table tennis, karate and wrestling, can be practised in any suitable venue, mainly halls. Owing to the shortage of community halls, the normative needs of all these facilities are all indicated by means of a (+) symbol. This same procedure applies to activities such as cinema shows and dancing. The total picture of recreation needs in Gauteng is presented in Figure 1, which, together with Table 2, gives an overview of specific recreation needs in the area.

The extensiveness of recreation needs in black residential areas of the Gauteng Province, as illustrated, has been reduced in size to manageable basic components through classification, and clear priorities come to the fore. According to expressed needs, tennis courts are a most important need but from the taxonomy, it is clear that when other factors are also considered, tennis courts are not ranked that high on the priority list. Where needs

Table 1: Recreation needs in the black residential areas of the Gauteng region, 1989

FACILITY	FELT NEEDS % RESPON- DENTS n = 1 483	COMPARATIVE NEEDS (LOCAL GOVERNMENT)	STATED NEEDS (INTERVIEWS)	EXPRESSED NEEDS (% PARTICIPA- TION)	NORMATIVE NEEDS (NUMBER OF FACILITIES)	
					a	b
Soccer field	21.7	no	yes	men 22.2	122	214
Tennis	20.5	no	no	2.40	49	308
Recreation hall/ indoor games/ community centre	18.4	yes	yes	2.20	13	164
Bioscope	17.2	yes	yes	11.10	2	*
Dance	13.0	no	yes	1.10	several	*
Stadium	9.1	yes	no		6	65
Netball	6.6	no	no	women 2.8	100	308
Library	5.3	yes	yes	18.40	8	149
Boxing	5.0	no	no	men 2.0	*	*
Park/playground	4.7	yes	yes	0.90	31	156
Nightclub	4.4	no	yes	0.40	several	*
Church	3.6	no	no	17.90	several	*
Swimming	3.2	yes	yes		6	65
Home crafts centre	2.7	no	yes	6.90	0	*
Gymnasium	2.4	no	no	0.06	3	*
Golf	2.2	no	no	0.30	2	7
Karate	1.8	no	no	0.90	several	*
Shebeen/hotel	1.8	no	no	0.50	2	*
Picnic area	1.8	yes	yes	0.20	2	7
Softball	1.8	no	no	0.40	9	65
Rugby	1.3	no	no	0.00	0	*
Athletics	1.0	no	yes	1.00	8	149
Cricket	1.0	no	no	0.00	2	*
Television	0.7	no	no	22.00	*	*
Drive-in theatre	0.7	no	no	0.20	0	*
Electronic games	0.5	no	no	0.20	several	*
Body-building	0.4	no	no	0.60	several	*
Gymnastics	0.3	no	no	0.20	several	*
Ice Rink	0.3	no	no	0.00	0	*
Marabaraba (board game)	0.3	no	no	0.30	*	*
Zoo	0.3	no	no	0.00	0	*
Gambling	0.5	no	no	2.70	*	*
Table tennis	0.3	no	no	0.40	several	*
Wrestling	0.2	no	no	0.00	*	*
Squash	0.2	no	no	0.00	0	*
Game Reserve	0.1	no	no	0.00	0	*
Museums	0.1	no	no	0.06	1	*
Youth Clubs	0.1	no	yes	0.30	several	*

* Includes shows, concerts, music shows, chess and board games

are determined solely by consulting people about their views, a wrong impression could surface. Inclusion of the opinions of experts and other interested parties gives a more realistic picture. By means of classification, needs can be measured at a variety of levels and the relative importance of a specific need can be observed at a glance. Needs that ought to be accorded high priority are represented by more plus (+) symbols on the chart and are contained in more squares than needs that are of lesser importance. Therefore recreation provision can be based on the determination of clear priorities according to the number of needs categories that are recorded at a specific locality.

In this example, tennis courts, indicated as a need by 20,5% of the respondents (Table 1), are actually in a lower category than a stadium (9,1%) or even an athletics track (1%), both of which are assessed by four (+ + + +) signs (Table 2). The grouping of recreation needs gives a broad indication of the rank order of needs. The percentages given for each facility (Table 2) represent the respondents' felt needs and give a more refined grading within the group. This classification therefore makes it possible for the planner to plan for very specific recreation needs and thus to serve the community in a more effective way.

8 CONCLUSION

The foregoing discussion shows that classification procedures in general can be used to organize data for the purpose of planning for recreation. The effectiveness of such planning, however, will be sacrificed if recreation provision does not satisfy the needs of the community. It has been clearly illustrated that the community's recreation needs can be determined and classified as an essential first phase. Planning can now proceed more effectively, since it can be done in conjunction with a taxonomy based on the community's specific needs. If recreation provision is planned in the community's interests in such a way, it will satisfy residents' needs and, without the fear of squandering resources, will serve the interests of the community. Recreation provision for

Table 2: Classification of recreation needs in the black residential areas of the Gauteng region, 1987

PRIORITY	NEED
(+ + + + +)	recreation hall/indoor games community centre (18,4%); cinema (17,2%); library (5,3%); play area (4,7%); picnic site (1,8%)
(+ - + + +)	soccer field (21,7%); dance hall (13%); homecraft centre (2,7%); athletics track (1%)
(+ + - + +)	stadium (9,1%)
(+ + + - +)	swimming pool (3,2%)
(+ - - + +)	tennis court (20,5%); netball court (6,6%); boxing ring (5%); gymnasium (2,4%); golf course (2,2%); karate (1,8%); beer hall (1,8%); softball (1,8%); physical training (0,4%); gymnastics (0,3%); table tennis (0,3%)
(+ - - + -)	drive-in theatre (0,7%); television (0,7%); electronic games (0,5%); gambling (0,5%); marabaraba (0,3%); museum (0,15%); youth clubs (0,1%)
(+ - - - -)	rugby (1,3%); cricket (1%); ice skating (0,3%); wrestling (0,2%); squash (0,2%); game reserve (0,1%)

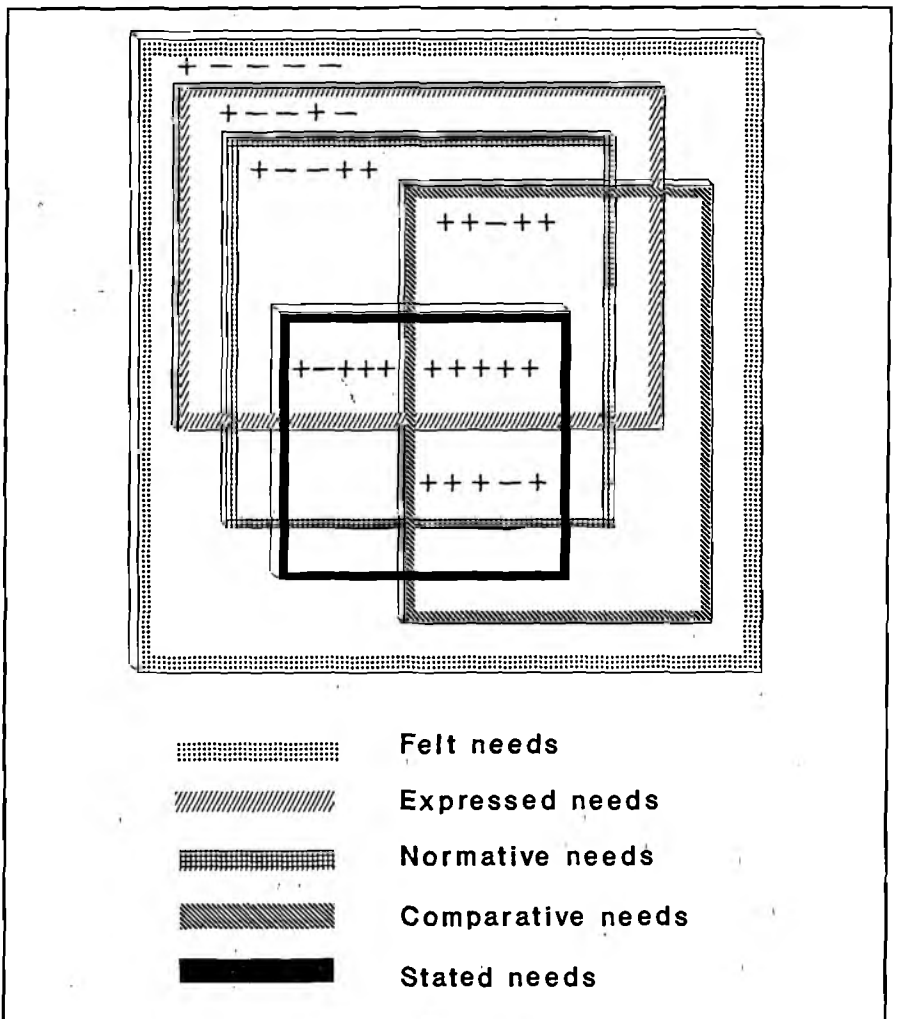


FIGURE 1: Classification of recreation needs in the black residential areas of the Gauteng Region, 1989

developing communities can, according to this recommendation, be planned more successfully and be more cost effective.

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