# A SYSTEM FOR THE ASSESSMENT OF PROGRAM, SERVICE, AND/OR FACILITY COMPONENTS 

DAVID L. GROVES<br>School of Health, Physical Education and Recreation<br>Bowling Green State University


#### Abstract

Customer satisfaction is one of the primary elements related to profits in commercial recreation. The purpose of this study was to explore the potential of using the correlation between short-term and long-term measures to assess the impact of programs, services, and facilities. Results indicate that the proposed methodology is an additional tool to understanding how social/psychological factors are related to profits.


Recreation enterprises provide the spectrum of experiences from the entertainment to the cultural and the educational outcomes. The types of commercial ventures that provide a lasting experience beyond the entertainment function are those that usually show greater patron satisfaction and profits in the long run [1]. How do recreation leaders know how to design quality programs, services and facilities? The primary answer to this question is knowing what component parts of programs, services and facilities are related to increasing customer satisfaction. Thus, the primary focus is on techniques and methods of evaluation to assess change. This is a report on a study that is a variation from a technique and method that has been developed to examine a structured tour to determine the impact of component parts on satisfaction [2]. The basic methodology is one that dealt primarily with a structured program. It was primarily developed for use by tour operators or where there is some type of structured program for comparison. So often leisure programs, services, and/or facilities are provided on a spontaneous basis. The need for such a methodology became apparent to the author upon a recent visit to a theme park. The individuals were trying to study the dynamic behavior of the client and trying to ascertain the impact of

[^0]particular attractions upon the overall satisfaction of the customer to determine how to change each attraction. This type of information can have a significant impact upon the facilities because it can help the administrator to better focus upon particular segments and their relation to overall satisfaction for greater return visits. These return visits are the key to sustaining profits.

The current methodology is one of post-evaluation to determine the bestliked and the least-liked attractions and why. The failure of this approach is the need to assess each attraction in relation to other outcomes to determine the net effect. An overview approach is essential to understanding the intra-and interrelationships and how the parts fit together. A recreational endeavor such as a theme park is a system. This system must be well understood because a change in one element can have a significant impact upon the other parts. It is the overall image that is important in an attraction that brings customers back to an endeavor like a theme park. This does not suggest that one or two particular attractions are not the drawers but in many instances in recreational endeavors it is the secondary experiences that are the important element.

So often the assumption is made that a spontaneous area cannot be organized in terms of programs, services, and facilities [3]. Lines are too long at one attraction while others are underutilized. Individuals often pass many attractions never understanding what is there and how to utilize a spontaneous area. Many times those familiar with a recreational endeavor get tired of the same attractions. Tourist attractions can be reprogrammed or repackaged to revitalize them based upon changing the experience for repeat visitors. These are only a few of the problems that administrators have in spontaneous areas. In general, the dynamics of these types of endeavors are not well understood and, as a result, an intuitive basis of management is employed. The purpose of this article is to explore the potential of a different assessment method to help recreation leaders of spontaneous areas to improve their programs, services, and facilities.

## STUDY POPULATION

A pilot study was conducted on a senior citizen tour to the " 1984 " World's Fair sponsored by a travel agency in the southeastern United States. The tour's schedule was regimented in relation to time and location. There were two days spent on the World's Fair site. The World's Fair site is a typical spontaneous participant area. There were forty senior citizens in the group and thirty-five were directly involved in the study.

## Instrumentation

The approach used was the correlation of short-term measures to long-term factors. The instantaneous measures utilized were satisfaction with a particular
attraction, mood, and quality of programs, services, and facilities while the longterm factor used was satisfaction with the overall experience.

Mood, in terms of personality theories, is short term but indicates instantaneous feelings. Moods are the building blocks of a social, psychological construct such as satisfaction. A list of words describing feelings were given to the participants. They were asked to indicate, using no more than three words, their feelings while visiting the various attractions at the World's Fair. The author felt that it was important for mood change to be characterized using only a word description list and not a scale because most mood changes having the greatest ability for measurement are those aspects that relate to qualitative characterization of feelings.

Each of the attractions for the World's Fair was listed on the questionnaire and individuals were asked to rate the program, services, and facilities on the basis of quality. Quality was rated on an excellent, good, average, and poor scale. A monetary scale was used in conjunction with wording to give the respondents an indication about the relative value of these statements. The following symbols were used with evaluative words: $\$ 20=$ excellent; $\$ 15=$ good; $\$ 10=$ average; and $\$ 5=$ poor. Short-term satisfaction, mood, and quality parts of the questionnaires were completed in the evening at the end of each day's activities. The clients were asked to recall the experiences of the day and fill out the questionnaire. A map was also provided to help them recall particular attractions and an interviewer met with each of the participants in the evening to answer questions and help them complete the questionnaire.

Satisfaction, a long-term measure, was assessed using the concept of objectives accomplished. This type of measure was utilized because it is easier to deal with a percentage of objectives accomplished than with the more elusive term of satisfaction. Participants were interviewed at the beginning of the trip to determine their objectives. They were interviewed at the end of the trip to obtain the number of objectives accomplished. The objectives were rated on the following scale: completely achieved, partly achieved, and not achieved. The following scale was used to rate the objectives: if an objective was completely accomplished, it was assigned a value of 1 ; if it was partially achieved, it was assigned a value of 0.5 ; if it was an unexpected outcome, it was assigned a value of 0.25 . The sum of these scores was divided by the total number of objectives listed. This provided an index of satisfaction based upon the individual and helped to standardize the more elusive concept of satisfaction. Individuals were also asked to rate their satisfaction with each attraction using the following scale: objectives completely achieved, objectives partially achieved, and objectives not achieved.

A section was also provided to obtain information about what should have been changed about the World's Fair to improve the experience for the individual. Specific information was sought about attractions and how this would have changed the value of the experience for the individual.

## Methods and Procedures of Analysis

The purpose of this study was to test methodology and to determine the diagnostic value of mood as a short-term measure to indicate the effectiveness of component parts of an attraction and how it relates to satisfaction. The data were analyzed using a stepwise regression in which satisfaction was utilized as a dependent variable. Satisfaction with a particular attraction, mood, and quality ratings of the program, services and facilities were the independent variables. There was a different equation for each of the attractions at the World's Fair. This allowed for each segment to be assessed in terms of its overall impact. Since mood is only a qualitative characteristic, it was incorporated into the regression equations using a dummy variable framework.

Standardized beta coefficients were also used to obtain a relative indicator of the importance of a variable in each equation. Equations were reported based upon their $R^{2}$ value. Those equations with an $R^{2}$ value of greater than 0.5 gave the most reliable information about the attractions. (A 0.01 probability level was used to determine which variables to incorporate in the equations.)

Stepwise regression was also conducted on a comparison with overall satisfaction with individual satisfaction of attractions. The dependent variable was overall satisfaction and the independent variables were the satisfaction with each attraction. The same standards were used for recording the equations and the incorporation of the variables into the equation. This permitted the studying of attractions on a comparative basis.

## RESULTS

Findings indicate that those attractions that were culturally oriented seemed to produce a greater level of satisfaction than those that were more entertainment, industrial/commercial, or technical/education oriented (Table 1). Those that provided insight into the cultural development of an attraction were the ones that were significantly related to satisfaction. The common response to cultural/inspirational exhibits was Social Affection, to entertainment exhibits was Surgency, to industrial/commercial exhibits was Skepticism, and to technical/educational exhibits was Concentration (Tables 1 and 2). There was a trend in the analysis of the equation toward long-term outcomes as opposed to the more immediate. Quality of the facilities and programs and services seemed to be a very important dimension related to overall satisfaction. The equations that had a value of less than 0.4 were also reported but they were less reliable on which to make conclusions because they are not significantly related to the satisfaction index constructed.

The most popular attractions and pavilions were Aquacade, Watergarden, Centennial Pavilion, Italian Village, Reunion Hall, Vatican Pavilion, Australia, Canada, China, and the United States (Table 3).

Table 1. Levels of Satisfaction (S) for Attractions

| 1) | Aquacade $S=$ above mean | lighthearted (0.3) <br> quality of program (0.5) <br> warmhearted (0.3) <br> carefree (0.2) |
| :---: | :---: | :---: |
| 2) | Cajun Walk <br> $S=$ near mean | active (0.4) <br> energetic (0.2) |
| * 3) | Chrysler Pavilion $\mathrm{S}=$ below mean | intent (0.3) dubious (0.2) suspicious (0.2) |
| 4) | Captain's Bridge | no consistent pattern |
| 5) | Conergy Pavilion $\mathrm{S}=$ below mean | clutched up (0.2) intent (0.3) |
| 6) | Louisiana Native Plants | no consistent pattern |
| 7) | Union Pacific $\mathrm{S}=$ below mean | sluggish (0.4) quality of program ( -0.3 ) dubious (0.3) |
| * 8) | Watergarden $S=$ above mean | quality of facility (0.6) <br> lighthearted (0.3) <br> playful (0.5) <br> warmhearted (0.5) |
| 9) | Cyclo-Tower | no consistent pattern |
| 10) | Giant Wheel | no consistent pattern |
| 11) | Shoot the Chute | no consistent pattern |
| 12) | America's Electric Energy Exhibit $S=$ near mean | suspicious (0.2) <br> concentrating (0.4) <br> sluggish (0.2) |
| *13) | Centennial Pavilion $S=$ above mean | peaceful (0.4) warmhearted (0.2) quality of facility (0.4) |
| *14) | Mississippi Aerial River Transit $S=$ above mean | fearful (0.6) <br> clutched up (0.3) <br> skeptical (0.3) <br> defiant (0.4) |

[^1]Table 1. (Cont'd.)

|  | Pavilions and Attractions | Independent Variables |
| :---: | :---: | :---: |
| 15) | Petroleum Industries Pavilion $S=$ near mean | carefree ( 0.3 ) <br> pleased (0.4) |
| 16) | Water Sculpture | no consistent pattern |
| 17) | Antique Carousel | no consistent pattern |
| 18) | American Showcase Theater | no consistent pattern |
| 19) | Louisiana Folklife Festival $S=$ above mean | affectionate (0.4) <br> lighthearted (0.3) |
| *20) | Jazz and Gospel Tent $S=$ above mean | overjoyed (0.5) <br> active (0.4) <br> pleased (0.5) <br> peaceful (0.3) |
| *21) | Italian Village $\mathrm{S}=$ above mean | ```quality of service (0.7) carefree (0.4) lighthearted (0.4) playful (0.3)``` |
| *22) | Federal Fibre Mills $S=$ above mean | ```quality of facility (0.2) peaceful (0.4) pleased (0.2) warmhearted (0.3)``` |
| 23) | Rainbow | no consistent pattern |
| 24) | Sky Lab | no consistent pattern |
| 25) | City of New Orleans | no consistent pattern |
| *26) | Reunion Hall $S$ = above mean | energetic (0.5) active (0.7) rebellious (0.5) carefree (0.6) |
| *27) | Vatican Pavilion $S=$ near mean | peaceful (0.4) <br> pleased (0.3) <br> intent (0.4) |
| 28) | Fulton Street Market $S=$ below mean | tired (0.3) <br> sluggish (0.4) |
| 29) | Ice House | no consistent pattern |
| 30) | Old Rice Mill | no consistent pattern |

Table 1. (Cont'd.)

|  | Pavilions and Attractions | Independent Variables |
| :---: | :---: | :---: |
| 31) | Artworks "84" | no consistent pattern |
| 32) | Bureau of Reclamation | no consistent pattern |
| 33) | Christian Pavilion | no consistent pattern |
| 34) | Church of Christ | no consistent pattern |
| 35) | I've Known Rivers, Inc. | no consistent pattern |
| *36) | Louisiana $S=$ above mean | quality of program (0.2) pleased (0.2) <br> carefree (0.3) |
| 37) | Mississippi $S=\text { near mean }$ | quality of facility ( 0.3 ) carefree (0.2) |
| 38) | National Parks | no consistent pattern |
| 39) | Ochsner | no consistent pattern |
| 40) | Great Water Course | no consistent pattern |
| 41) | Preservation Resource Center | no consistent pattern |
| 42) | River Road $S=$ near mean | playful (0.2) <br> warmhearted (0.3) |
| 43) | Tea House of the World | no consistent pattern |
| 44) | WDSU Television | no consistent pattern |
| 45) | Women's Pavilion | no consistent pattern |
| 46) | Magic Room | no consistent pattern |
| *47) | Australia $S=$ above mean | intent (0.5) <br> concentrating (0.6) <br> pleased (0.4) |
| *48) | Canada $S=$ above mean | peaceful (0.4) <br> playful (0.5) <br> carefree (0.4) <br> warmhearted (0.6) |
| 49) | Caribbean $S=$ below mean | suspicious (0.4) engaged in thought (0.3) |

[^2]Table 1. (Cont'd.)

|  | Pavilions and Attractions | Independent Variables |
| :---: | :---: | :---: |
| *50) | China | pleased (0.3) |
|  | $S=$ near mean | intent (0.4) |
|  |  | skeptical (0.3) |
|  |  | suspicious (0.4) |
| *51) | Egypt | intent (0.4) |
|  | $S$ = above mean | concentrating (0.6) |
|  |  | peaceful (0.3) |
|  |  | warmhearted (0.3) |
| 52) | E.E.C. | sluggish (0.4) |
|  | $S$ = below mean | engaged in thought (0.3) |
| 53) | France | engaged in thought (0.4) |
|  | $S$ = near mean | lighthearted (0.3) |
| *54) | Italy | affectionate (0.5) |
|  | $S=$ near mean | concentrating (0.4) |
|  |  | warmhearted (0.4) |
| 55) | Japan | intent (0.4) |
|  | $S$ = above mean | quality of facility (0.5) |
|  |  | carefree (0.5) |
| 56) | Liberia | sluggish (0.3) |
|  | $S$ = below mean | engaged in thought (0.4) |
| 57) | Peru | clutched up (0.3) |
|  | $S$ = below mean | intent (0.4) |
| 58) | Philippines | dubious (0.4) |
|  | $\mathrm{S}=$ below mean | skeptical (0.6) |
| 59) | Korea | kindly (0.5) |
|  | $S=$ near mean | tired (0.5) |
| *60) | United States | active (0.6) |
|  | $\mathrm{S}=$ near mean | boastful (0.4) |
|  |  | concentration (0.5) |
| *61) | Mexico | intent (0.5) |
|  | S = near mean | peaceful (0.5) |
|  |  | playful (0.4) |
| 62) | NASA | boastful (0.4) |
|  | $S=$ near mean | warmhearted (0.5) |

Table 1. (Cont'd.)

| Pavilions and Attractions | Independent Variables |
| :--- | :--- |
| 63) Liggett and Myers Amphitheater | no consistent pattern |
| 64) Op Ship | no consistent pattern |
| 65) Riverboat Cruise | no consistent pattern |
| 66) Ski Transpo | no consistent pattern |
| 67) Wall | no consistent pattern |
| 68) WRNO | no consistent pattern |

Table 2. List of Most Frequent Variables in Equations by Mood Category
Levels of Mood Category Moods

1. Surgency
2. Concentration
3. Social Affection
4. Skepticism
5. Quality
6. Elation
7. Vigor
8. Passive
9. Fatigue
10. Anxiety
11. Aggression
12. Egotism
13. Sadness (no responses)
carefree, playful, witty, lighthearted concentrating, engaged in thought, intent
affectionate, kindly, warmhearted
dubious, skeptical, suspicious services, program, facility
elated, overjoyed, pleased active, energetic, vigorous peaceful
drowsy, sluggish, tired
clutched up, fearful, jittery
angry, defiant, rebellious
boastful, egotistic, self-centered regretful, sad, sorry

Table 3. Satisfaction

| Overall Index <br> (Dependent Variable) | Component Scores <br> (Independent Variables) |
| :---: | :--- |
| Satisfaction | Aquacade (0.3) |
|  | Watergarden (0.5) |
|  | Centennial Pavilion (0.4) |
|  | Italian Village (0.5) |
|  | Reunion Hall (0.4) |
|  | Vatican Pavilion (0.3) |
|  | Australia (0.5) |
|  | Canada (0.5) |
|  | China (-0.2) |
|  | United States (0.3) |

Variables occurring most frequently in the equations and having the largest standardized beta coefficients are the variables having the greatest influence upon satisfaction. Therefore, an analysis was made in order to identify the number of times which variables appeared in the equations or identified those with the greatest influence upon satisfaction. There was a cyclic movement between Surgency and Concentration and Social Affection and Skepticism (Table 2).

## IMPLICATIONS

The primary purpose of this study was to develop a molecular methodology; that is, an approach that will better understand the individual perspective of leisure services. This type of molecular approach is especially important with the greater sophistication in the consumer [4]. One of the basic problems with the World's Fair was its marketing and not understanding the nature of the consumer and having an inability to properly design the marketing message to attract the participant. It is no longer feasible to provide an attraction and hope that someone will show up. The key to any molecular approach is the social/ psychological dimension associated with the leisure experience. The leisure experience is primarily psychological. Therefore, to better understand leisure, its attraction and impacts, a psychological approach is essential. The methodology in relation to psychological elements has not been well developed, especially when bottom line profits are the greatest concern [5]. The link between the psychological factors and bottom line profits has not been well
understood. The obvious link between the psychological domain and profits is in impact analysis; that is, determining the outcomes from the leisure experience and utilizing this information to better design programs, services, and facilities. Once the impacts are well understood, they cannot only be used to deal with the subject of improvement of program, services, and facilities, they can be used in a social auditing format to justify them. Just as money has a roll-over impact in an economy, so the social/psychological benefits have a primary, secondary, and tertiary impact. One cannot put a value on the leisure experience, but the value of the leisure experience can be shown in terms of primary, secondary, and tertiary outcomes and the impact it has upon the individual in the community in relation to increasing and improving profits. The basic dimension here is as a tool to increase profits. This is not to negate the positive social impact but the relationship between the social impact and dollars can be illustrated using social auditing techniques.

The results of this study show some of the base links between certain attractions and their ability to produce certain psychological conditions. It is important as a first step to understand outcomes in relation to types of programs, services, and facilities. The next step is not only to understand satisfaction as a general outcome but to understand the impacts of particular outcomes. A third phase is to understand these outcomes in relation to their profit potential. This study, as part of a larger study on the World's Fair, will also examine these last two issues in a further analysis.

## REFERENCES

1. R. J. Gitelson and J. L. Crompton, Insights into the Repeat Vacation Phenomenon, Annals of Tourism Research, 11:2, pp. 199-218, 1984.
2. D. L. Groves, Commercial Recreation and Tourism: A Component Analysis of Customer Satisfaction, Journal of Environmental Systems, 14:1, pp. 93-102, 1984-85.
3. N. Schwabb, III, A New Generation of Theme Park Rolls In, Urban Land, 42:4, pp. 8-11, 1983.
4. R. C. A. Johnson and R. C. Mannell, The Relationship of Crowd Density and Environmental Amenities to Perceptions of Malls and Leisure Shopping Environments, Recreation Research Review, 10:4, pp. 18-23, 1983.
5. J. D. Fridgen, Environmental Psychology and Tourism, Annals of Tourism Research, 11:1, pp. 19-39, 1984.

Direct reprint requests to:
Professor David L. Groves
School of Health, Physical Education, and Recreation
201E Eppler South
Bowling Green State University
Bowling Green, OH 43403


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[^1]:    * Significant Equations

[^2]:    * Significant Equations

