Users' Perceptions of the Relative Importance of Service Quality Dimensions in Selected Public Recreation Programs

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Abstract  Earlier research that focused on selected commercial services suggested that from the user's perspective the concept of service quality consists of five main dimensions. The present study investigated the relative importance of these dimensions as perceived by participants in four selected public recreation programs. To ensure diversity in the type of programs included, a taxonomy was used to guide program selection. It was hypothesized that dimensions of service quality would not be of equal importance to participants in the selected recreation programs, and the hypothesis was supported. Reliability consistently emerged across programs as the most important dimension of service quality, and in three of the four programs empathy received the least support.

Keywords: Service quality, reliability, tangibles, responsiveness, assurance, empathy, users' perceptions.

Introduction

Service quality is an elusive and indistinct construct (Parasuraman, Zeithaml, and Berry 1985), but provision of consistently high-quality service is a goal that public recreation agencies seek to attain. Service quality is the raison d'être of a recreation agency. There is nothing more central to its mission, and its success in delivering a satisfactory level of service quality is likely to be crucial in determining the degree of constituency support that it can command. Because recreation services are experiences rather than objects, it is difficult to provide specifications for quality. Many recreation services have a high labor content, so that their delivery to participants often varies from employee to employee, from user to user, and from day to day (Zeithaml, Berry, and Parasuraman 1985, 1988).

There appears to be some degree of consensus that perceived service quality is the

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user's judgment about a service's overall excellence or superiority (Berry, Parasuraman, and Zeithaml 1988). Recreation suppliers may provide the same types of services, but they do not provide the same service. Services offered by different suppliers ostensibly may look alike, but to users they do not "feel" alike. In an early report on the subject in the context of recreation, Wager (1966, 12) noted "Quality is a human concept based on highly subjective criteria . . . and seems to be a highly personal matter." Thus it has to be investigated from the perspective of users. Perceived service quality differs from objective quality (as defined by, for example, Garvin 1983) and is a form of attitude in the sense that it is an overall evaluation of a service (Olshavsky 1985).

Although the central importance of service quality is increasingly recognized by suppliers of recreation services, it has not led to research designed to identify, assess, or evaluate the phenomenon of service quality. This is surprising, particularly given the considerable research effort that has been invested in exploring the construct of satisfaction, because service quality appears to be related to user satisfaction.

Indeed, there has been some confusion between the constructs of satisfaction and service quality. Assessing perceived service quality is not equivalent to assessing satisfaction. Satisfaction is a psychological outcome emerging from an experience, whereas service quality is concerned with the attributes of the service itself. Attributes of service quality can be controlled and manipulated by recreation suppliers, assuming that the necessary resources are available. In contrast, level of satisfaction is dependent not only on quality of service attributes but also on the status of a host of variables that may affect the user, such as the climate or the nature of the social group. Such variables are outside a supplier's control and may intervene, so that a perceived high-quality service could result in a low level of satisfaction. Conversely, a high satisfaction outcome may result even when perceived service quality is low because, for example, the social group interactions are sufficiently positive to offset the low-quality service.

Although the satisfaction and service quality constructs are different, they both draw on the expectancy disconfirmation paradigm for their theoretical basis. Expectancy disconfirmation comprises two processes consisting of the formation of expectations and the disconfirmation of those expectations through performance comparisons (Oliver and DeSarbo 1988). The expectation level appears to provide a baseline from which disconfirmation judgments are made. Thus an individual's expectations are confirmed when a service performs as expected, negatively disconfirmed when the service performs worse than expected, and positively disconfirmed when the service performs better than expected. Dissatisfaction with service quality or with the psychological outcome results when an individual's expectations are negatively disconfirmed.

Although service quality may be evaluated as an overall gestalt, such an evaluation is of relatively little value to managers (Propst and Lime 1982). To maintain or improve service quality, an agency must identify the dimensions of the service that are most important to users so that they can modify their management practices and allocate their resources effectively (Gronroos 1983).

In response to the growing interest in service quality the Marketing Science Institute (Cambridge, MA) has sponsored a program of research, much of which has been undertaken by Parasuraman, Zeithaml, and Berry (1985, 1988). Their exhaustive developmental work suggested that service quality consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Tangibles represent the physical facilities, equipment, and appearance of personnel. Reliability refers to the ability to perform the promised service dependably and accurately. Responsiveness is the willingness to help users and to provide prompt attention. Assurance indicates courteous and knowl-

able employees who convey caring, individualized attention.

These dimensions emerged from Parasuraman, Zeithaml, and Berry (1985) in a wide variety of service industries. Service quality in the context of recreation is important because these dimensions influence the quality of the selected recreation services.

Methods
The survey sample was drawn from participants in metropolitan Halifax, Nova Scotia. Participants were chosen with guidance from the classification consists of two components: the core of a service required in the delivery of a service and the intensity of the core required for a service. This framework is based on five dimensions across a range of services.

We selected one recreation activity that was reasonably representative of the participant's experience. We are later to present evidence that the painting classes did not require specific creativity and technique; indeed, painting classes could be learned in a short time. Nevertheless, it was thought that both the involvement and the skill were important. Gentlemen's ice hockey in the league was self-governing, but the activity was selected, Senior trips to various events and destinations were chosen, but there was no intensive staff involvement. The activities selected to represent our best effort. Some compromise was necessary.
superiority (Berry, Parasuraman, Zeithaml, and Berry 1988) believe the dimensions to be generalizable across a wide variety of service industries. The present study explored the concept of service quality in the context of recreation service delivery. It sought to identify the relative importance of these dimensions in their contribution to perceived service quality in selected recreation services.

Methods

The survey sample was drawn from the population of municipal recreation program participants in metropolitan Halifax, Nova Scotia. Selection of the programs from which participants were chosen was guided by Lovelock's (1984) classification of services. The classification consists of two continua reflecting the level of direct staff involvement required in the delivery of a service and the degree to which a specialized facility is required for a service. This framework was used in an effort to assess the importance of the five dimensions across a range of different types of recreation services.

We selected one recreation activity for each of the four quadrants that we believed to be reasonably representative of the quadrant (Figure 1). Unlike physical fitness classes, painting classes did not require specialized large-scale equipment, floor, or acoustic facilities; indeed, painting classes could be conducted in various types of environments. Nevertheless, it was thought that both types of classes needed a relatively high level of staff involvement. Gentlemen's ice hockey occurred without direct staff involvement because the league was self-governing, but it used recreation departments' ice rink facilities. Senior trips to various events and destinations were facilitated by the recreation agencies, but there was no intensive staff involvement in leading the trips.

The activities selected to represent each of the classification quadrants represented our best effort. Some compromise was necessary from our perceptions of the optimum

![Figure 1. The four programs from which the sample was drawn in the context of Lovelock's (1984) classification of services.](image-url)
activities to represent each quadrant. The selection was constrained both by the range of activities offered by agencies in the metropolitan Halifax area during the seasonal period in which the research was undertaken and by the need to have a reasonable number of respondents in each of the activities selected.

Lists of the selected programs from all five of the recreation departments in the metropolitan Halifax area were collected and served as a sampling frame. From this sampling frame, a randomized procedure was used to select programs in each of the four activities. All participants in each program that was selected as part of the sample were surveyed. Data were collected on site through use of a self-administered questionnaire handed out by an investigator at the start of one of the planned recreation sessions. The refusal rate was less than 5%. Table 1 shows the total number of programs offered in each of these activities by public recreation and parks agencies in metropolitan Halifax, the number of programs selected for the sample, and the responses received.

A constant-sum scale, which is a form of comparative rating scale, was used to rank order the dimensions that were most important for a desired level of service quality to be attained in each program setting. Respondents allocated 100 points among descriptive definitions of the five dimensions as follows:

1. **Tangibles**: the physical facilities, equipment, appearance of personnel, and presence of other participants
2. **Reliability**: the ability to perform the promised service dependably and accurately
3. **Responsiveness**: willingness to help participants and to provide prompt service
4. **Assurance**: knowledge and courtesy of staff, and their ability to convey trust and confidence
5. **Empathy**: caring, individualized attention to participants

A primary advantage of this technique is that it removes the halo effect that often emerges when itemized scales are used, whereby there appears to be carryover from one judgment to another. This frequently causes respondents reporting importance values on itemized scaling instruments that use Likert-type or semantic differential scales to indicate that all or nearly all the attributes are important. Constant-sum scaling emphasizes judgments in comparison to the other dimensions. Respondents are forced to note each dimension in comparison to the others, making it less likely that all dimensions will be considered of equal importance.

Because the constant-sum technique is a relative measure, it provides insight into the relative importance of the dimensions to each individual. It also avoids interpretive problems resulting from the use of adjectives in Likert-type and semantic differential scales. From a respondent's perspective, the primary limitation of a constant-sum scale is that it requires more work than is required to make more judgments.

Although the constant-sum technique involves calculations on analysis of the data. It was determined that each separate rating is not calculated as a mean of the total 90 points, then the remainder of the scores means that a different approach is required. Thus it would be calculated separately. Rather, there could be five dimensions relative to each other.

Another limitation relates to the way scores are usually viewed as ratio numbers, absolute magnitudes of the numbers, or as a mean of another dimension. The constant can be assumed to be constant across five dimensions as important, so the dimensions were irrelevant (0 points), and the remaining dimensions were assumed to be important. Tom each rated the last dimension to be the average importance rating for each.

To avoid these problems, we used a constant-sum rating scale. For each respondent the values were assigned to the data the basic requirement of each dimension was uniform. Thus if a respondent rated 100 and lower ratings were made on each dimension, it was scored 100 points. The tangibles dimension of the 100 points in the tangible dimension received 100 points scored over 0.5 points. Standardized constant-sum rating scale, and Duncan's method indicated that dimensions of service quality varied across selected recreation programs and staff importance across selected recreation programs.

### Results

Table 2 shows the standardized scores across the program areas. Tangible hockey players were at the other end of the scale. This was anticipated because the facility—low staff intensity activity to be the priority high—low facility intensity satisfying outcome.

There were no significant differences.
that it requires more work than an itemized rating scale technique because the individual is required to make more judgments.

Although the constant-sum scale has a number of strengths, its use places some limitations on analysis of the data. First, the restraint that five ratings must total to 100 means that each separate rating is not independent from the others. For example, if four ratings total 90 points, then the remaining dimension must be given 10 points. This interdependence of scores means that a dimension cannot be removed from the group and analyzed separately. Thus it would be improper to create a separate and distinct hypothesis for each dimension; rather, there can be only one hypothesis concerning the rankings of these dimensions relative to each other.

Another limitation relates to the nature of the ratio data. Scores on a constant-sum scale usually are viewed as ratio data. Ostensibly, this allows comparisons to be made of absolute magnitudes of the numbers (Churchill 1983). For example, if the mean rating of one dimension was 50 points on the 100-point scale, it would actually be twice as much as a mean rating of another dimension scoring 25 points. The nature of that ratio cannot be assumed to be constant across all subjects, however. For example, George rated all five dimensions as important, so that he gave each a score of 20, Tom thought that three dimensions were irrelevant (0 points each), one dimension was of major importance (80 points), and the remaining dimension was a bit important (20 points). Although George and Tom each rated the last dimension as 20 points, it would be incorrect to assume that the meaning of that score is the same to both men. Adding the two scores to obtain an average importance rating for each dimension in effect would do that.

To avoid these problems, we developed a score equivalent to the concept of standardized scores. For each respondent, ratings were scaled so that the top value became equivalent to 100, and lower ratings were adjusted proportionately. This procedure gave the data the basic requirement of equivalency across subjects; that is, the ratio measurement was made uniform. Thus if a respondent allocated equal points to each of the five dimensions, each dimension was scored 0 points. Alternatively, if a respondent allocated 80 points to the tangible dimension and 5 points to each of the other four dimensions then the tangible dimension received a score of 2 points, and each of the other four dimensions was scored −0.5 points. Standard scores were developed from responses to the constant-sum rating scale, and Duncan’s multiple range test was used to test the two hypotheses that dimensions of service quality will not be of equal importance to participants in selected recreation programs and that dimensions of service quality will not be of equal importance across selected recreation programs.

Results

Table 2 shows the standard scores for dimensions within and across program areas. Across the program areas, tangibles were perceived to be relatively more important to hockey players than the other three program areas and were of significantly less concern to painters. This was anticipated and offers evidence to support the notion that in a high facility—low staff intensive activity the ambiance of the facility and equipment are likely to be of central importance to a satisfying outcome, whereas in painting classes, which are high staff—low facility intensive, the physical ambiance is not likely to be crucial to a satisfying outcome.

There were no significant differences between the standard scores on the reliability
dimension across program areas is not an important to respondents in the activities. The painting respondents recorded for all four activities and the importance the activity and the importance of participants with personal programs and other recreative outcomes from recreation.

The assurance dimension was more than by others. This was designed to have relatively little staff interaction and an extensive knowledge and competence of the program area. Programs appear to have been personalized to the hockey players, whose requirements were limited to scheduling, competence and ability as being their most important.

The analyses of variance test significant differences in the relative importance of program areas. Perhaps the most important was empathy, which respondents ascribed to the reliability areas, suggesting that irrespective of organisational service dependably and accurately service quality.

Among fitness respondents ranking dimensions, empathy was significantly less important than the other two, almost as important as reliability.

Discussion

Perceptions of the importance of samples of participants engaged in the research had indicated that the firm's structure of service quality in select service is under managerial control, satisfaction experienced by users. This suggests that more may be gained in ensuring level of satisfaction because customer satisfaction is essentially dependent on a plethora of variables.
dimension across program areas. Responsiveness was perceived to be relatively more
important to respondents in the painting activity than to those in the fitness and hockey
activities. The painting respondents also reported significantly higher scores than those in
the other three activities on the empathy dimension, although the negative standard score
recorded for all four activities suggests that empathy was not perceived to be of primary
importance to any of the sets of participants. The higher scores of painting respondents
on the responsiveness and empathy dimensions reflect the more individualistic nature of
the activity and the importance of the personal chemistry, interaction, and interrelation-
ship of participants with personnel in a high staff intensive situation. That this was not
reproduced among those in the fitness programs suggests that participants did not per-
ceive the fitness activity to be as highly staff intensive as those in painting. The lower
scores reported on the empathy dimension for the two facility intensive activities were
expected and appears to confirm that staff response is not necessarily important to a
satisfying outcome from recreation experiences in these types of contexts.

The assurance dimension was rated significantly more important by trip respondents
than by others. This was designated as a low staff intensive activity because there was
relatively little staff interaction with participants in the program. Neverthelessthe,
knowledge and competence of staff in organizing and managing the logistics of the trip
programs appear to have been perceived as being important to their success. In contrast,
hockey players, whose requirements were limited to facility use and whose contact with
staff was limited to scheduling playing time in the facility, appeared to perceive staff
competence and ability as being less relevant to their needs.

The analyses of variance tests indicated that respondents perceived there to be signifi-
cant differences in the relative importance of the five dimensions within each of the four
program areas. Perhaps the most striking finding was the consistently high ranking that
respondents ascribed to the reliability dimension. It was ranked highest in all program
areas, suggesting that irrespective of the type of program the ability to perform the prom-
ised service dependably and accurately was considered the most important dimension of
service quality.

Among fitness respondents reliability was significantly more important than the other
dimensions, and empathy was significantly less important. This pattern was repeated
among the hockey participants with the exception of the tangibles dimension, which they
ranked almost as highly as reliability. Among painting respondents tangibles was signifi-
cantly less important than the other dimensions, and responsiveness was perceived to be
almost as important as reliability. Those who were in the trip programs were particularly
emphatic about the relative importance of reliability and the relative unimportance of
empathy.

Discussion

Perceptions of the importance of service quality dimensions were investigated for
samples of participants engaged in four different types of recreation programs. Previous
research had indicated that the five dimensions used in this study described the basic
structure of service quality in selected commercial services. The quality of a recreation
service is under managerial control. It is likely to be a major determinant of the level of
satisfaction experienced by users. Because service quality is a controllable variable, it
suggests that more may be gained by focusing research efforts on it rather than on mea-
suring level of satisfaction because satisfaction is a psychological outcome that is par-
tially dependent on a plethora of variables that are outside management’s control.
The two hypotheses that dimensions of service quality will not be of equal importance to participants in selected recreation programs and across selected recreation programs were supported. Godbey (1989, 61) states "So much has been said about quality during the last few years that we have a tendency to become numb to what it means." Frequently it is articulated as a cliché that in some fuzzy way relates to excellence, but rarely are efforts made to operationalize it. Like many research results, the findings reported here may intuitively appear to be rather obvious. Nevertheless, they empirically demonstrate that different dimensions of service quality are important in different services, and it could be projected that these dimensions may differ even within the same service in different situations or with different types of clientele. The possible influences of age, gender, and income as covariates were investigated, but it was found they had no substantial effect on importance rankings. Nevertheless, it is possible to speculate, for example, that the consistently low ranking of the empathy dimension may be attributable to the prevailing self-confidence and competence of respondents in all the program areas. These qualities of the sample were not measured and so could not be controlled. If the study was replicated with a sample of participants new to an activity, then it may be hypothesized that the empathy dimension would be rated much higher.

The four programs from which the sample was drawn were intended to be different from one another to test the notion that the importance of dimensions of service quality differs across activities. The use of the taxonomy was intended to facilitate this. Table 2 shows that the results for fitness and hockey were similar, however, which suggests that fitness may not have been an optimal activity choice to represent that quadrant of the taxonomy. The similarity suggests that fitness was representative of high facility intensive activities, but comparison with responses from the painting sample suggests that it was not representative of high staff intensive activities. A more representative program may have exhibited greater differentiation in the relative importance of service quality dimensions in this quadrant.

This limitation, together with the more general associated limitation that the program activities were designated as representative of quadrants by the investigators rather than by respondents and the restricted nature of the sample, means that it is not possible confidently to generalize these findings. The taxonomy framework, however, offers a basis for generalization in future studies that may rectify these limitations. For example, findings in the high facility—low staff intensive quadrant, which was represented in this study by gentlemen’s hockey, may be generalizable to other noninstructional recreation programs requiring specialized facilities such as swimming, curling, or woodworking. If the findings reported here were replicated in such future studies, then it would be reasonable to suggest that for these types of programs reliability and tangibles are the two most important aspects of providing quality service. The self-directed nature of these activities makes interaction with staff less prominent, and consequently responsiveness, empathy, and assurance are less important.

The challenge of providing a high-quality recreation service becomes less difficult when agencies know what their patrons expect from a service and what they feel is important to quality. From a managerial perspective, identifying the dimensions that are most important indicates the direction that management should take in investing its efforts and resources to increase the probability of visitors’ experiencing a positive psychological outcome from participation in the activity. Given the centrality of service quality to the mission of recreation agencies, research toward a better understanding of the nature of service quality should be a primary concern. To the best of our knowledge, work in this area has not been reported in the leisure literature. It is hoped that the initial research effort reported here will stimulate this area.

Acknowledgments

The authors appreciate the comments discussed in the first two paragraphs are reproduced almost verbatim.

References

Service Quality in Public Recreation Programs

Effort reported here will stimulate interest among others to invest research effort in this area.

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The authors appreciate the comments of the anonymous reviewer who brought the issues discussed in the first two paragraphs on p. 371 to their attention. These two paragraphs are reproduced almost verbatim from the reviewer’s comments.

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