

MEASURING EXPECTATIONS: FORECAST VS IDEAL EXPECTATIONS. DOES IT REALLY MATTER?¹

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ABSTRACT

Consumer's participation in service delivery is so central to cognition that it affects consumer's quality evaluations. The study presented in this paper investigates the ways that visitor expectations change as a result of first hand experience with a service in the context of a major art exhibition. The research design allowed for two operational definitions of expectations, namely forecast and ideal expectations, in order to investigate differences between respondents' pre and post experiences with a service. A total of 550 respondent visitors were interviewed during a major art exhibition, using two questionnaires delivered to two sub samples of respondents. The primary questionnaire was designed to capture recalled expectations after visitation while the parallel questionnaire captured forecast expectations prior to visitation and perceptions in the post experience phase. The findings suggest that forecast expectations were different to ideal expectations in both qualitative and quantitative ways and that these differences had important implications for perceptions of service quality. These differences can be explained, at least in part, by the way that expectations are formed and by the way that expectations are shaped by the actual visitation experience. For market researchers, the question of when and how to measure expectations has important implications for research design.

Key Words

Expectations, Forecast Expectations, Ideal Expectations, Service Quality, Recall, Perceptions, Satisfaction

INTRODUCTION

Marketing of the arts has become highly competitive as consumers are faced with an increasing array of choices to occupy their leisure time. At the same time, governments are reducing funding for the arts and cultural activities and moving towards a user-pays system (Reiss, 2001). For the directors of arts museums, these changes have stimulated an interest in a more marketing oriented approach to service delivery. Cultural entities have responded to such challenges by becoming more concerned with effective management.

This research reported in this paper has several objectives. Firstly, the research investigated the relationship between expectations and perceptions in both pre and post service encounters. Specifically, it sought to investigate the way that pre-experience expectations are altered by the service experience itself. Secondly, it sought to examine the components of service quality. Finally the research is a context specific application of the service quality model. This paper argues that consumers' participation in the service delivery process is so central to cognition that it affects consumers' quality evaluations and therefore that expectations are dynamic.

LITERATURE REVIEW

Expectations are pre-trial beliefs about a product or service and its performance at some future time. (Boulding, 1993; Spreng; 1996). Although the literature uses many different labels to describe the expectations, four categories are the most frequently cited; namely forecast, normative, ideal and minimum tolerable (Woodruff, 1983; Oliver, 1996). Forecast performance standards are also known as expected expectations (Boulding, 1993; Teas, 1993, 1994; Tse and Wilton, 1988; Woodruff, 1983) and occasionally predictive expectations (Devlin et al, 2002; Prakash et al, 1984; Spreng, 1996). These refer to a prediction of what the consumer believes will occur in the next service encounter (Boulding, 1993). Normative expectations are also known as deserved expectations and occasionally desired expectations (Devlin, 2002; Parasuraman et al, 1991b; Pyo,1998). They refer to what the consumer should expect which, in turn, is related to what is

feasible and realistic for the service firm to deliver. (Teas, 1993, 1994). Ideal expectations refer to a standard that represents the highest level of performance attainable by a premier service provider in the category (Woodruff, 1983; Teas, 1993, 1994; Parasuraman, 1991b; Tse and Wilton, 1988). Finally minimum tolerable expectations, also known as adequate expectations (Parasuraman, 1991b) refer to minimum acceptable baseline of performance (Woodruff, 1983). Emerging evidence suggests that consumers understand and use multiple levels of expectations (Oliver, 1996; Tse and Wilton, 1988; Woodruff, 1983)

Spreng et al (1996) and Woodruff (1983) have argued that only forecast expectations are true expectations. It is worth noting that of all four definitions, two namely forecast and normative expectations are brand-cued in the sense that they expressly refer to a forthcoming branded purchase or service experience. On the other hand, ideal and minimum tolerable expectations are category cued constructs since they force customers to consider broader evaluation comparisons across a range of service providers within a category. Although the differences between these four types of expectations are subtle, they are nonetheless perceptible.

Insert table 1

Expectations are important concepts because they form the frame of reference for satisfaction judgments. That is, satisfaction is viewed as a relative concept, judged in relation to some type of comparison standard (Oliver, 1996). Indeed, it is the comparative value of satisfaction scores that provides their real diagnostic value.

Current understandings of the expectations construct and its role in satisfaction come from two different traditions; the consumer satisfaction literature and the service quality literature. The consumer satisfaction literature has a much longer heritage researching and conceptualizing issues surrounding performance quality. Its primary concern is to understand consumer processes used to evaluate quality irrespective of whether tangible products or abstract services are involved. The

services marketing literature is exclusively concerned with understanding and measuring quality in service environments. Implicit in this body of literature is the notion that the unique attributes of service quality require different conceptualizations and measurement techniques (Zeithaml, 1981; 1985). The tensions created by these two traditions have been explored in detail elsewhere (Parasuraman et al, 1988; Boulding, 1993; Buttle, 1996; Oliver, 1996; Teas, 1993;) and only a brief overview of the salient issues is provided here. Table 2 summarizes key themes in these two literatures.

The Satisfaction Literature

The consumer satisfaction literature defines satisfaction as a judgment, attitude or psychological state arising from consumers' disconfirmation of expectations (Rust and Oliver, 1994; Oliver, 1996; Westbrook and Reilly, 1983; Woodruff, 1983). Satisfaction is a subjective process, where judgments are made based on comparison standards. Although researchers in the satisfaction tradition have used all four definitions of expectations (Cadote et al, 1987; Tse and Wilton, 1988), forecast or normative definitions tend to dominate (Boulding, 1993).

It is important to note that the satisfaction literature is primarily concerned with a transaction-specific encounters and as a consequence tends towards brand cued expectations (Rust and Oliver, 1994). In the traditional framework, respondents are not prompted about the specific dimensions of satisfaction, rather they are expected to spontaneously generate dimensions of satisfaction that are personally meaningful and relevant (Mc Gill and Iacobucci, 1992).

Although most empirical research in the satisfaction literature has been designed to capture expectations in the post consumption phase, there are several notable studies that have attempted to capture predictive expectations in the pre-trial phase (Boulding, 1993; Mc Gill et al, 1992; Szajna and Scamell, 1993). Taken collectively, these studies suggest that predictive expectations tend to result in lower values and that this in turn, results in higher satisfaction levels. Conversely,

normative or ideal expectations tend to generate higher values which result in lower satisfaction. Oliver (1996) notes, reasonably, that that high expectations tend to frustrate satisfaction.

The Service Quality Literature

The service quality tradition is concerned with a broader understanding of expectations where respondents are asked what they should expect of an excellent service provider. This is generally operationalized as normative or ideal expectations (Oliver, 1996). In theory, the dimensions of service quality are thought to be universal to all service encounters (Parasuraman et al. 1985, 1988) although empirical studies indicate that the dimensions may be industry specific (Carman, 1980; Johns and Tyas, 1996; Lam and Woo, 1997; Llosa et al., 1998; Bishop-Gagliano and Hathcote, 1994).

In the service quality literature, attention has focused on the model of service quality developed by Parasuraman et al. (1985, 1988) which has proved to be a relatively robust measure. Popularly known as the gaps model, the discrepancy between perceptions (P) and expectations (E) is used as to measure service quality. The size of this gap indicates the degree to which a consumer is perceived quality service. The discrepancy approach is believed to mimic consumers' cognitive processes and is grounded in prior conceptual work (Oliver, 1996; Pitt et al, 1997).

The service quality literature typically uses two definitions of expectations, normative and ideal. Respondents are normally surveyed once only in the post-experience phase and are required to recall pre-experience expectations. The SERVQUAL instrument, specifically instructs respondents to think about *excellent* companies (Zeithaml, 1990: 180), thereby using a definition that aligns more closely with ideal expectations. Given the extent to which this instrument has been used and adapted, ideal expectations have become the dominant standard in the service quality literature.

While the gaps model makes intuitive sense, numerous problems have been identified in the literature. Problems with validity, stemming from ambiguously defined constructs, are frequently

cited in the literature (Buttle, 1994; Cronin and Taylor, 1992; Teas, 1993). Germane to this study is the ambiguity surrounding the expectations construct noted by numerous researchers (Cronin and Taylor, 1992; Boulding, 1993; Teas, 1993; Van Dyke, 1997; Pitt, Watson and Kavan, 1997). Given the level of managerial insight afforded by the gaps model, its continues to enjoy currency. Few researchers are willing to dismiss it entirely and call for further research into the validity the model. (Buttle, 1996: 29; Cronin and Taylor, 1992: 65; Mels, 1997: 185, Teas, 1993: 31; Van Dyke, 1997: 205).

A number of comparisons between the two literatures emerge from the preceding discussion. One similarity relevant to this study is that, with only a few notable exceptions, the current protocol in research design is that expectations are captured in the post consumption phase. Oliver (1996) has suggested a number of explanations for this convention. Simple expediency is a primary consideration given the difficulty identifying prospective consumers prior to purchase. However, theoretical considerations may also be at play. The underlying assumption is that referents used by consumers in post consumption phase are those that are actually processed cognitively in satisfaction formation are therefore the most relevant.

Another important similarity within the two literatures rests with its assumptions about consumer familiarity. Both the satisfaction literature and the service quality literature assume prior experience. Indeed its is an implicit assumption of the SERVQUAL instrument that customers have a wealth of prior experiences on which to draw (Ziethaml, 1990).

Reconciliation of Two Traditions

Only recently has the literature attempted to reconcile the satisfaction and service quality traditions. Contemporary literature suggests that service quality affects service satisfaction at the encounter specific level. Subsequently, discrete encounters may be aggregated into overall perceptions of quality. (Rust and Oliver, 1994) In other words satisfaction is superordinate to

quality at the transaction specific level (Rust et al, p. 6) but quality is superordinate to satisfaction over a long- term relationship (Oliver, 1996).

Insert table 2

The Problematic Nature of the Expectations Construct

The service quality and customer satisfaction literature employ different understandings of the expectations construct. Parasuraman et al (1988) has pointed out that “expectations” in the service quality tradition refers to what customers feel the service provider should offer. Teas (1993) has pointed out that in the satisfaction literature most often refers to customer’s beliefs about what will be offered during the next transaction (Boulding, 1993; Teas, 1993). In short, the dominant standards are normative expectations for service quality and forecast expectations for satisfaction.

It has been argued that even within the service quality literature there is some ambiguity surrounding the definition and operationalization of expectations (Boulding, 1993; Teas, 1993; Spreng et al, 1996). Parasuraman et al. (1988) conceptualize expectations as “desires or wants of consumers (p.16).” In other words, expectations are what consumers feel the service provider “should offer rather than what they would offer (p.16). Yet the SERVQUAL instrument departs from this context-specific understanding with explicit references to *excellent* companies with which consumers would be *pleased* to do business (Zeithaml, 1990: 180). Clearly SERVQUAL’s standard instructions ground respondents in category cued expectations (ideal) rather than brand-cued expectations (normative). It thus forces consumers to consider broader norms in the service category. Arguably, the service quality literature confounds two different types of expectations.

A major issue arising from this discussion is the sources of information used to form expectations. The literature identifies a range of internal and external cues typically used by consumers – including marketing communications, word of mouth referrals, third party information

and prior experience with specific brands or category norms. (Boulding, 1993; Cadote, 1987; Oliver, 1996; Woodruff 1983; Ziethaml, 1990). However, there has been no systematic study linking different information sources to the four types of expectations. Intuitively, we would expect that category cued expectations would draw on different sources of information brand cued expectations compared to category cued expectations. By definition, both ideal and minimum tolerable expectations assume respondents to have at least some prior exposure to either a specific provider or a category. Tse and Wilton (1988) suggested that ideal expectations are likely to be based on past product/service experiences, advertising and word of mouth whereas forecast expectations are likely to be based on average product performance and advertising. Prior experience with a product is also thought to be influential in forming minimum tolerable expectations. These insights were based on the literature and were not tested empirically. Nevertheless, consumers' prior experience with services appears to be indicated in the formation of all types of expectations.

There is a major gap in the literature on the subject of novice consumers who lack prior experience with a specific service provider or service category. It has been argued that consumers cannot realistically form expectations about a service when they have little or no prior knowledge of it. (O'Neill and Palmer, 2003). Yet empirical research suggests that even customers without any prior experience or with only limited past experience do form expectations (Mc Gill et al, 1992; Shirai and Meyer, 1997). At issue is whether novice consumers use their pre-contact expectations to evaluate performance (Cadote et al, 1987) and the extent to which initial expectations are realistic, in terms of both their direction and their dimensionality.

Consumer inexperience is not an absolute condition; rather there are degrees of inexperience. At one end of the spectrum, are total novices lacking prior experience with either a brand or the category. At the other end of the scale, are partial novices with experience of the category, but no knowledge of the specific provider for a forthcoming transaction. Although few markets are comprised entirely of total novices, this is precisely the situation facing new product

categories. Break-through innovations and new product concepts require consumers to construct new expectations. Very little is known about how novices form expectations. It has been argued that partial novices have limited, albeit fragmentary information, about a forthcoming service encounter prior to consumption (Zeithaml, 1990; Boulding, 1993; Osajalo, 2001). Novice or infrequent patrons may have relatively unsophisticated impressions of a forthcoming encounter compared to their experienced counterparts with richer and more realistic expectations. Intuitively, we would expect novice consumers' expectations to undergo major transitions as experience accrues.

Oliver (1996) points out that this is not an issue that has been extensively surveyed in the literature. Cronin (1992) has noted that in the absence of prior experience, consumer's expectations alone define perceived service quality. Mc Gill (1992) has argued that novices, lacking concrete insights about service attributes, shift to higher levels of abstraction. The use of abstract evaluative processes is consistent with consumer research literature (Bettman and Suja, 1987). Cadote (1987) however notes that wherever possible, consumers prefer to use concrete rather than abstract evaluative criteria.

Service quality assumes that consumer's expectations are clearly formed. Yet, both conceptual and empirical research suggests that expectations are often imprecise, implicit or unrealistic (Cadote, 1987; Mc Gill, 1992; Oliver, 1996; Osajalo, 2000; Prakash, 1984; Snajna and Scamell, 1993; Woodruff et al, 1983). The potential for changes to expectations during the service experience is an issue for research design.

Several studies have investigated the dynamic nature of expectations during service delivery. Cadote et al (1987) investigated the formation of pre-purchase expectations using three different operational definitions of expectations; two brand-cued and one category-cued construct. The research findings suggested that although consumer's satisfaction comparisons tend to draw on consumer's total experiences with both the focal and related brands, category based comparisons may have greater salience for satisfaction.

A study by Mc Gill et al (1992) compared the pre and post-experience evaluation attributes of a group of students enrolling in a computer workshop. This is an important contribution since it represents a rare instance where novice consumers were used as respondents. The findings suggested that satisfaction was not evaluated on pre-experience expectations rather, they were evaluated on attributes that were generated by the experience itself. Moreover, pre-experience expectations focused on abstract attributes and general category-cued attributes such as learning outcomes and the opportunity for personal development. Post –experience evaluation attributes, on the other hand, were very concrete, frequently centering on the minutiae of the service process such as the instructor’s demeanor or the layout of handout materials. This study suggests that expectations are not clearly formed prior to service delivery and that the experience itself prompts consumers with the evaluative criteria. However, the small sample comprising university students exclusively is a major limitation of this study.

Boulding (1993), pointing to the static nature of the gaps model with important implications for expectations, used both an experiment and a field study to develop a dynamic model of service quality. He argues that expectations are a precursor to perceptions and that they are dynamic. Although the object of the study was not to make express comparisons between different operational definitions of expectations, the experimental design manipulated two different prior expectations namely ideal and normative. Boulding’s study is also important in that it did not rely on recalled expectations. Boulding’s findings about the dynamic nature of expectations and service quality are clearly inconsistent with the gaps model with its assumption that expectations remain relatively unchanged pre and post service experience.

A shortcoming of current research is that service quality and satisfaction measurement occurs in the post experience phase. In the service quality literature, expectations prior to consumption are assumed to be equal to those after consumption (Parasuraman et al, 1985, 1994). Accordingly, respondents can be interviewed in the post-consumption stage and asked to recall of

pre-consumption expectations (Oliver, 1996: 88). This, now conventional administration in the post consumption phase, arguably confounds different types of expectations in the consumer's mind.

At issue is whether expectations, captured and recalled after the fact, reflect those expectations carried into the service experience. Oliver (1996) points out that this has received scant attention in the literature and that findings reveal mixed results. Limited evidence from psychology literature suggesting that retrospective reports of expectations may have some validity (Kahnemann and Miller, 1986). Other empirical research suggests that recalled expectations regress towards performance levels (Snaja and Scamell, 1993). This observed tendency for consumers to downgrade their expectations over time, highlights the capacity for the experience to change expectations. To date, the limited research on this issue has concentrated on changes in the directional movement of expectations rather than any dimensional changes.

Which definition of expectations is optimal has also received scant attention in the literature. Recent research suggests that forecast expectations of a focal brand are superior predictors of satisfaction (Boulding, 1993; Oliver, 1996). This conclusion is by no means robust. Other research, primarily from the satisfaction tradition, finds support for the idea that expectations of comparative brands or the category are superior (Cadote et al, 1987; Woodruff et al, 1983). Yet others support the idea that consumers hold multiple standards concurrently (Boulding, 1993; Oliver, 1996).

Implications for Measurement of Expectations

The issue of when to measure expectations is an important consideration. Although, emerging evidence suggests that recalled expectations, measured retrospectively are not equivalent to forecast expectations, the literature is unclear about the way that expectations are shaped by the actual service experience. Equally unclear is whether familiarity simply influences the level of expectations or whether it changes the conceptual categories used to make quality evaluations. Not

only does this have implications for research design, but it is also an issue for the selection of respondent groups, qualified to comment on different operational definitions of expectations.

The preceding discussion leads to the hypotheses for this study:

H1: That the dimensions of service quality will vary depending on whether individuals are asked about forecast expectations (E_f) or ideal expectations (E_i)

H2: That the act of visiting an art exhibition causes visitors to change the conceptual categories used to evaluate that exhibition.

H3: That forecast expectations (E_f) are superior to ideal expectations (E_i), when used as predictors of service quality.

This paper contributes to an understanding of expectations with an empirical study using two different operational definitions of expectations by specifically comparing ideal and forecast expectations of a single service encounter within the context of a major art exhibition. This paper makes a number of contributions to the service quality literature. It attempts to disentangle the roles of expectations in pre and post experience encounters. This study also illuminates the way that novice consumers form expectations of unfamiliar service encounters and the ways that expectations are altered during contact.

ART MUSEUMS AS A SERVICE EXPERIENCE

Art museums were selected for study for several reasons. A major goal of the research was to select a service that attracts patrons without prior experience of the service offering. Art museums, particularly those staging major art exhibitions, attract large numbers of novice patrons as well as regular visitors over a concentrated time frame. Although patrons may have prior experience of the venue, they could not have prior experience of a specific exhibition as these are special events staged for limited time periods. Galleries are also venues that make for convenient identification of prospective patrons. A key issue for this research was whether to modify the SERVQUAL for the industry specific application. Modifications to SERVQUAL have become

conventional practice (Carman, 1990; Cronin and Taylor, 1992; Teas, 1993 Zeithaml, 1985; Parasuraman, 1988, Zeithaml, 1990).

Arguably art museums are different from utilitarian services in a number of important ways. Viewing the exhibition constitutes the core service and thus a sensory experience with strong visual dimensions is at the heart of the service encounter. Within an art gallery there are also a range of peripheral services including the supporting programs such as the educational video displays, the cafeteria and souvenir shop. It is assumed that visitors to an art gallery also bring their interpretative skills. Visitors with limited cultural experience may require more assistance from gallery staff. Conversely, skilled patrons may have a reduced need for contact with personnel. As a generalization, galleries are low contact systems but with some scope for flexible delivery of personal services. For the majority of visitors contact points are usually confined to peripheral service areas: ticket counters, reception, cafeterias and souvenir shops. Clearly, these issues have implications for modification of the SERVQUAL instrument originally designed for utilitarian services.

Kotler and Kotler (1998:189) have argued that a museum's offerings comprise five dimensions: the physical facilities, the collection and exhibition, the interpretive materials, supplemental programs and services. Clearly, these dimensions represent a departure from the dimensions presented in the traditional gaps model. With the exception of Kotler's "Physical Facilities" dimension, which parallels SERVQUAL's "Tangibles" dimension, these dimensions are unique to museums. The "Collection and Exhibition" refers to the rare objects or art works on display. "Interpretative Materials" include signage, labels, texts, brochures and catalogs. "Supplemental Programs" include lectures, performances and social events while Services include information, orientation, food service, gift shop, seating, management of congestion and provision of comfortable rest areas.

An art museum's collection is designed to emphasize tradition and continuity based on values and philosophies that are different from utilitarian services. For instance, modern-looking

equipment, one of the items in the SERVQUAL questionnaire, may symbolize efficiency in a financial institution, but can appear anachronistic in a museum environment. Clearly references to “modern” in the original SERVQUAL should be removed from a questionnaire to be administered to art museum patrons.

Within art galleries there are also various types of exhibitions ranging from permanent displays through to hosting major traveling exhibitions. Staging major exhibitions imposes additional stresses on an art museum, the most significant of which is the drawing of large numbers of visitors over a relatively short time-frame. This may cause additional service delivery problems associated with peak-load service systems. Accordingly, the researchers felt that the questionnaire should include more process related items.

There are a number of other operational issues associated with staging of major art exhibitions that need to be considered, including traffic flow problems, curatorial issues concerned with attribution, authenticity and nomenclature required to capture the unique nature of a gallery service offering. Galleries staging major arts exhibitions frequently experience problems with traffic flows, ticketing and queue management within the exhibition space. Within the focal organization, there had previously been customer complaints related to the fact that the Gallery omitted selected advertised art-works, some having being withdrawn from public view at different stages of the exhibition’s national tour. Gallery management expressed some eagerness to include an additional item relating to the display of advertised works.

Given the ongoing controversy surrounding attribution of Rembrandt paintings, there were concerns that works being displayed at major events might not be genuine. In 1968 more than 400 works were attributed to Rembrandt. Since that time, the Dutch Government funded Rembrandt Research project has reattributed almost half of the existing corpus of Rembrandt’s works to his pupils. While authenticity problems are global, they are acutely felt in Australia since one of Australia’s most celebrated paintings, a so-called *Self Portrait* of the master, has been re-attributed to Rembrandt’s pupils rather than the master (Potts, 1998: 17-18). Authenticity is an important

issue for quality and thus the broader service experience. Accordingly, additional items addressing authenticity were considered for inclusion in the questionnaire.

Taken collectively, these issues provide a compelling case for a context specific SERVQUAL to be developed. Given the unique experiential and operational issues associated with an art exhibition, a decision to modify the SERVQUAL instrument was made early in the research design. To distinguish it from the original, our modified instrument was labeled ARTSQUAL. Table 3 provides a comparison of SERVQUAL and ARTSQUAL.

The revised instrument was based on an extensive review of the arts literature and discussions with Gallery management. Following a pilot test, a decision to reduce the length of the questionnaire was made in an effort to minimize respondents' time commitment. The overall number of items was reduced to 19 instead of the customary 22. ARTSQUAL included a number of new items with no parallel in SERVQUAL, as identified in the preceding discussion. New items were designed to examine operational issues associated with art museums and nomenclature required to capture the unique nature of a gallery service offering. Of the revised questionnaire, nine of the nineteen items were not derived from the original SERVQUAL instrument.

Insert table 3 here

METHODOLOGY

The study undertook to examine service quality of a specific art exhibition using a services quality approach. The study also attempted to also examine whether the model of service quality could be improved by examining different types of expectations, specifically ideal versus forecast. As such the method involved randomly surveying two sub samples of first time visitors to a major art exhibition at a premier Australian Gallery.

Evaluation of H1 (that the dimensions of service quality will vary depending on the operational definition of expectations) requires two operational definitions of expectations to be

tested. Accordingly, the two variants of the questionnaire were designed. The primary questionnaire, was designed to capture ideal expectations recalled where one captured forecast expectations in patron's pre-experience stage and the other examined ideal expectations recalled immediately after visitation.

H2 (that the act of visiting an art exhibition causes changes to the conceptual categories used to evaluate the exhibition) calls for a comparison of pre and post encounter attitudes to the service. Enabling this hypothesis to be tested required a departure from the conventional once only survey process during the post-encounter. Instead, it required that the same respondents were surveyed both prior to and after the service encounter.

H3 (that forecast expectations are superior predictor of service quality) calls for the inclusion of additional holistic measures of satisfaction and quality that can be correlated with the service quality scores derived from the discrepancy measures. The literature reports a number of additional measures (Cronin & Taylor, 1992; Teas, 1993; Oliver, 1996) and these were incorporated into the questionnaire.

At the core of this study is the manner in which the expectations construct is operationalized. An essential aspect of the research design was the development of two different definitions of expectations. Accordingly, the survey was administered to two sub samples of visitors to a major exhibition at one Australian Gallery. One group was given the ARTSQUAL instrument using the traditional wording and was designed to capture ideal expectations (E_i) and perceptions of the exhibit after they viewed the exhibit. In essence, respondents were asked to "recall" their expectations *after* visitation. We labeled this group the post-experience group. The second group was asked about their forecast (E_f) expectations *before* viewing the exhibit. We labeled this group the pre-experience group. (See Table 4 for details of the wording)

Insert table 4 Here

In the case of the pre-experience group, the need to capture forecast expectations before visitation while simultaneously measuring actual perceptions after visitation necessitated an departure from the conventional methods of administering the survey. The questionnaire was divided into two parts; one part dealing with expectations was administered by personal interview prior to admission while part two which captured perceptions was part of a self-administered questionnaire. Respondents were asked to take this part away with explicit instructions that it was not to be completed until after the gallery visit was concluded. For convenience, respondents were provided with a variety of modes for questionnaire return. The two parts of the questionnaire were coded to allow matching of respondents' responses. In an effort to maximize response rates and prompt return, the Gallery offered incentives in the form of prizes.

A sample of 550 visitors was deemed to be more than adequate based on Gallery estimates that 120,000 visitors would visit the exhibition. Questionnaires were administered via personal interview on each day of the week and at each of the major viewing times including early morning breakfast sessions. Respondents were screened to ensure that this was their first visit to the exhibition. The sample size for the two groups varied to make allowances for anticipated response rates with the pre-experience group. A total of 300 questionnaires were distributed with 195 respondents returning the self-completion component – a response rate of 65% - and forming the total usable sample. With regard to the post experience group, a total of 251 usable questionnaires were obtained. It needs to be noted that the different collection method may in fact be a limitation of the study.

The second stage of the project involved data analysis. A variety of techniques were used to explore the data. Factor analysis was used to explore the dimensionality of service quality as well as the dimensionality present in both expectations and perceptions. Paired t-tests were also undertaken to explore inter-group differences across the underlying variables. Descriptive statistics and reliability tests were also used to examine the data.

Operationalization of Expectations

The wording of the standard instructions in ARTSQUAL instrument was a major consideration in research design. Modifications were confined to those necessary for testing of the hypotheses. Two parallel questionnaires would be given to two sub samples. In the primary questionnaire, respondents were given the traditional wording used in SERVQUAL. This was designed to capture ideal expectations and was administered to patrons in the post experience phase. A parallel questionnaire was to be used with the pre-experience group and was designed to capture forecast expectations. Clearly, it was necessary to alter verb tense from the past to the future. This is consistent with recommendations by Oliver (1996). In addition, words that would ground respondents on ideal expectations replaced those that signaled forecast. Specifically, all references to “excellence” were avoided in the parallel questionnaire (see table 4 for the exact wording used). To cue respondents on a brand specific encounter, specific mention of the National Gallery of Victoria, host to the Rembrandt exhibition, was included. Differences between the two questionnaires were minimized and were reserved for those designed to reflect the operational definitions of the expectations construct.

In addition to the 19 statements, relating to expectations and perceptions, the instrument also included questions designed to elicit demographic data, respondents’ visitation of other cultural and sporting events and sources used to acquire information about the exhibition. The instrument also contained independent measures of satisfaction and service quality including; consumers’ behavioral intentions in relation to the exhibit as well as a global satisfaction score. These items were included to allow for an independent check of the validity of derived service quality scores. An overall subjective satisfaction rating was added plus two measures of behavioral intentions.

DISCUSSION OF FINDINGS

Comparison of the demographic composition of respondents in the two sub samples was important in order to identify that the samples were both typical of the Gallery's patron profile and to ensure that there were no major inter-group differences. Table 5 summarizes this comparison. Analysis of the two respondent groups reveals that they were relatively young, well educated, occupied in professional occupations and likely to be without dependants, all of which is consistent with the Gallery's normal visitor pattern. Respondents exhibited a distinct preference for cultural leisure pursuits over spectator sports. They also came with high levels of cultural capital reflected by their preparedness for the exhibition and their prior experience of attending arts exhibitions in general. More than 65% of respondents had consulted two or more sources of information related to the exhibition prior to visiting it. Only a small proportion of respondents had no prior experience with a major art exhibition. Almost 80 percent of the total sample had experienced at least one prior major art exhibition in addition to the exhibition being studied.

Insert table 5 here

An independent test of proportions (i.e. Z tests) revealed only minor demographic difference between the two sub samples (See Table 5). The only statistical difference between samples, at the .05 level occurred for the age variable and for those who visited 2-3 exhibitions previously. The pre-experience group had a statistically larger proportion of respondents drawn from the younger age groups while the post experience group had a higher proportion of respondents drawn from the over 60 age group. Overall, however, the two samples were similar in terms of their demographic composition and their cultural preparedness for the exhibition. It seems reasonable to infer that any observed differences between the two samples with respect to expectations, perceptions and service quality cannot be explained by demographic factors.

A number of statistical tests were performed to evaluate the first hypothesis (that the dimensions of service quality will vary depending on whether ideal or forecast expectations are

used). Firstly differences in the mean values of expectations, perceptions and service quality scores between the two groups were noted. Expectations for the post-experience group (ideal expectations) were generally higher than for the pre-experience group (forecast expectations). This finding is entirely consistent with other studies in this area (Oliver, 1996: 71-72). Finally the composition of factors used to identify perceptions, expectations and overall quality also showed inter group differences. Predictably, the post experience group's lower expectations resulted in higher service quality scores. This suggests that people with limited experience, who are asked about forecast expectations tend to offer more conservative estimates. The most likely explanation for this is that consumers, in the face of uncertainty and lack of information, downgrade their expectations as a risk reduction strategy.

Inflated expectations have implications for both the direction and the amplitude of the service quality gap. In this study, both sub samples showed very high levels of expectations on all dimensions. Mean expectations for the combined sample exceeded four out of a possible five. There are several possible explanations for this. Firstly, the previously noted levels of cultural awareness among patrons may be indicative of a discerning and demanding cohort. Secondly, the unusually high levels of gallery-sponsored promotion combined with media interest may also have contributed to elevated expectations. In this study, the gallery received negative service quality scores from both groups, highlighting the importance of managing expectations. It is worth noting that the quality gap, although negative, was of a relatively small size and does not signal major quality control problems. Nevertheless, it alerts management to potential future problems if left unmanaged.

Insert Table 6 here

A comparison of means was conducted to establish whether there were statistical differences between the two groups in relation to their expectations. The data, presented in Table 7, shows that the two groups were statistically different at the .05-level in relation to overall expectations. On the

other hand, there were no statistical differences between the groups in relation to their perceptions and overall evaluations of service quality. Closer examination of the constituent components of expectations reveals that there were significant differences for twelve of the nineteen variables (i.e. 63%). With the exception of three items, of which only one was statistically different, the post experience group's expectations were in fact higher than the pre-experience group's expectations. In other words, ideal expectations were not universally higher than forecast expectations on all dimensions.

Insert Table 7 here

The dimensionality of expectations, perceptions and service quality was also examined using factor analysis. Principal axis factoring with Varimax rotation was utilized. In total, seven sets of factor analysis were conducted. Space constraints prevent all of the analysis from being reported here. Across the seven analyses, the observed factor structure explained between 40 and 61% of the variation in the data. Although the factors had relatively low explanatory power, such results are consistent with findings from the service quality literature (Teas, 1993).

Results of the factor analysis in this study failed to support the five dimensions indicated in the gaps model. Instead, the analysis showed considerably greater congruence with Kotler's interpretation of an art museum's dimensions. However, we should not infer too much from this finding since the ARTSQUAL instrument was sufficiently different to the original SERVQUAL questionnaire that different structures could be anticipated.

It is more instructive to compare inter-group differences in factor structures. Data in Table 6, shows that the pre-experience group (forecast expectations) yielded five expectation factors and six service quality factors while the post experience group (ideal expectations) yielded fewer factors. This finding may suggest that novice consumers have more fragmented expectation. With regard to the pre-experience group, five expectation factors were yielded while the post experience group

only yielded four expectation factors. The schematic figures show that few variables load on the same factors; only five of the nineteen variables (26%) loaded onto the same factors across both groups. This suggests that not only are there directional differences between the two types of expectations, but there are also qualitative differences.

The factor analysis showed high levels of instability between expectations and perceptions across both groups. Of the most stable items were the highly tangible elements such as the provision of food and beverage and the provision of souvenirs consistently loaded onto the same factors. Both groups made relatively persistent distinctions between variations in quality that can be attributed to individual employees and variations that can be attributed to the system and its operating procedures. Statements opening with, "Employees will provide..." tended to load onto the same factor. Similarly, statements opening with the phrase, "The Gallery will provide..." also tended to load onto the same factor. Such distinctions have been called common cause (caused by the system) and special cause (caused by the individual) elsewhere (Deming: 1986). Furthermore, both respondent groups appear to make distinctions between the core service, namely the exhibition and the peripheral services that surround it. Given that the peripheral services (souvenirs, food and beverage) provided by the Gallery are commonplace in many service settings, this finding suggests that customers form relatively persistent expectations of basic services, but are far more inconsistent in their prior expectations of the unique aspects of an art exhibition.

Closer inspection of the factor structure revealed that expectations were driving the architecture of service quality dimensions. This finding is consistent with Cronin and Taylor's (1992) suggestion that expectations define service quality in the absence of prior experience. It is not, however, consistent with the literature that suggests that perceptions alone are a superior predictor of perceived service quality. Our findings suggest that while perceptions alone are a good predictor of absolute values of perceived quality, they are less useful in determining the underlying architecture of service quality.

To facilitate comparisons between expectations and perceptions, labels were forced for each of the factors. Labelling was complicated due to the instability of items across groups and over time. Labels used in the gaps model were avoided except in cases where at least 50 percent of items were common to our study and the original model. This 50 percent convention was also applied to inter group factors.

Insert Figures 2A and 2B

Schematic diagrams (Figures 2A and 2B) are designed to indicate the principal changes to expectation dimensions after visitation. Clearly, the cognitive categories were demonstrably different after visiting the exhibition. Not only had the five expectations dimensions converged into four, but the factor structure had also changed. Prior to visiting the exhibition, the pre-experience group identified a unique dimension, which we labeled “Convenience and Access”. After visiting the arts exhibition, however, this was absorbed into a larger cognitive set including all those items relating to the operating system. It is worth noting that the convenience dimension, which included ticketing, queuing and hours of operation, was only observed in the pre-experience group. This finding suggests that novice consumers are more concerned with immediate process issues and that consumers’ ability to recall this initial preoccupations are forgotten with first hand experience.

Similarly, the pre-experience group’s prior expectations tended to isolate items concerned with interpretative signage such that they loaded onto a single dimension. After visiting the exhibition, however visitors were more likely to view interpretative signs as part of a larger and more diverse set of items relating to the exhibition itself. This suggests that the quality of interpretative signage is so central to the overall viewing experience that visitors are unable to disentangle them after visitation.

To test the third hypothesis, correlation analysis was used to examine relationships between P, E and SQ scores. The three additional holistic measures of quality were also included in the

correlation analysis as an independent measure of quality. This data is summarized in Table 8. It confirms previous work showing that perceptions alone is a good predictor of perceived service quality (i.e. a statistically significant correlation of at least .60). However, the findings also indicate strong correlations between SQ scores when forecast expectations are used. This finding adds further support to Oliver's (1996) claim that forecast expectations have greater validity as comparative referents in satisfaction. However, it raises some questions about the applicability of a gap approach for evaluating novice service customers.

Insert Table 8

IMPLICATIONS

Clearly this study suggests that forecast expectations recalled after consumption are not the same as those captured prior to consumption. Our data supports the hypothesis the act of visiting a service changes expectations in both direction and dimension. In essence the mental categories used by consumers to evaluate a service are amended by participation in the process. Learning takes place during consumption. Visitation of a cultural arts facility is, in itself, an enriching experience. Not only do we expect visitors to learn about the works of art on display, but we also expect visitors to learn about the arts museum that mounts the exhibition. This learning process results in dynamic cognitive shifts that are constantly changing throughout the service experience. The nature of the service experience has the capacity to influence not only the size of expectations but also the categories used by consumers to organize their thinking about what to expect. Moreover, the way that attitudes are shaped by visitation suggests that service providers have ample opportunity to manage them throughout the consumer's transition through the service process.

Predictably, the degree of learning is more marked with novice patrons. Certainly, novices have very different expectations than experienced consumers. Not only are their forecast expectations more fragmented, they are more likely to be amended during visitation. Analysis of

forecast expectations' dimensionality sheds new light on consumer's pre-experience concerns. These findings suggest that patrons are more likely to focus on immediate issues notably issues of convenience and access. Such concerns appear to fade once learning occurs. Thus expectations could be used to develop segments with different information needs. To manage expectations among novices for instance, additional information about ticketing, queuing and hours of operation may assist in the formation of more realistic expectations.

The findings of this study contribute to a growing body of work suggesting that expectations are not clearly formed in the customer's mind prior to service encounters. Ambiguous expectations are arguably more pronounced among novice customers. Participation in the service experience sharpens the consumer's expectations and aligns them more closely with actual perceptions.

Both the factor structure and t-tests suggest that ideal and forecast expectations are very different. It should therefore make a difference which definition of expectations is used to predict service quality. Recalled expectations, captured in the post-encounter phase, so commonly used as proxy for forecast expectations are not reliable.

Compensatory evaluation is an implicit assumption of the SERVQUAL model. Positive evaluations on any given item within any given dimension are assumed to compensate for poorer evaluations on a different item within the same dimension. The underlying logic for this assumption is that groups of respondents share cognitive categories along which quality assessments are made. The use of difference scores can therefore only be justified insofar as consumers share similar understandings of service quality dimensions. This study, however, reveals that the understandings of the service dimensions are not entirely shared across novice and experienced patrons. Nor are they constant within the same group over time.

This study highlights that consumers' cognitive categories are not fixed. Rather they are altered by the actual experience. By virtue of their prior experiences with a service organization, regular users should have richer, more realistic expectations of a service. On the other hand, first-

time users are expected to have less sophisticated and more fragmentary expectations. The data shows that first time visitors have slightly lower expectations, possibly explained by a degree of uncertainty, which in turn gives rise to a tendency to underestimate expectations. 'Expectations' is not constant, rather it is a dynamic construct, constantly shifting over time as consumers take in new information inputs. Each new episode causes subtle shifts in expectations. Over multiple contacts and protracted service encounters, the potential for patrons to modify their views in profound ways is very high. For this reason, the dimensional structure of the service quality model will have an ongoing tendency towards instability.

LIMITATIONS AND FURTHER RESEARCH

In spite of its robust research design, this study has a number of limitations. Firstly, the context of an art museum represents a unique service. The instrument, ARTSQUAL, developed for this study is industry specific. Our study shows that consumer learning is integral to their service experience in an arts context. However, learning is at the heart of most cultural and artistic experiences. In more utilitarian service experiences, the degree of consumer learning may be far less pronounced. Findings from this study, therefore, may not be generalizable across other industries. Further research might replicate this research design in varied service environments to establish whether these same relationships exist.

The study was restricted to only two operational definitions of expectations, namely forecast and ideal. Although researchers have long supposed that recalled forecast expectations and true forecast expectations are not the same constructs. Oliver (1996) has advocated the term "performance amended" expectations or "retrospective" (p.89) to describe recalled expectations. Very real problems are associated with investigating changes to expectations within the same sample over time. Repeated administration of the same questions to the same sample will undoubtedly influence recall. The simple act of surveying respondents in the pre-consumption phase is likely to render their expectations more concrete and impact on hindsight. Key issues for

further research design include the operationalization of the expectations construct as well as the timing of interviews.

Although the findings support the idea that novice consumers exhibit more dramatic changes in their expectations as a result of learning acquired during the service experience, our study did not expressly measure the extent of consumer's past contact with other galleries. It was not possible, therefore, to make any inferences about the capacity for prior experience with the category to bias their judgments. The way that novices form expectations, especially the sources of information used in their formation and the implications for satisfaction, is a fruitful area for further research.

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Table 1			
Categories of Expectations			
Label	Brief Definition	References	
Brand –Cued Definitions	Forecast or Expected or Predictive	Consumer’s beliefs about what <i>will</i> occur in a specific forthcoming transaction with a given service provider	Devlin, 2002; Teas, 1993, 1994; Oliver, 1996; Prakash, 1984; Pyo, 1998; Spreng, 1996; Tse & Wilson, 1988; Woodruff, 1983
	Normative or Deserved or Desired	Consumers’ perception of what <i>should</i> occur based on an assessment of what is realistic and feasible for a specific service provider in a forthcoming transaction	Boulding, 1993; Devlin et al, 2002; Oliver, 1996; Parasuraman et al, 1991b; Prakash, 1984; Pyo, 1998; Teas, 1993, 1994; Tse & Wilson, 1988; Woodruff, 1983,
Category-cued Definitions	Ideal or Wished for	Highest level of performance attainable by any provider in the category	Boulding, 1993; Oliver, 1996; Teas 1993; 1994; Tse & Wilson, 1988; Woodruff, 1983
	Minimum Tolerable or Adequate	Minimum baseline performance acceptable for any provider in the category	Oliver, 1996; Parasuraman et al, 1991b; Woodruff, 1983;

Table 2

Comparison of Satisfaction and Service Quality			
Issue	Satisfaction	Service Quality	Key References
Core Concepts	Satisfaction is an attitude toward an object or event	Perceived Service Quality	Boulding, 1993, Parasuraman et al, 1985, 1988
Dominant Model	Disconfirmation paradigm	Gaps Model	Anderson, 1994, Rust & Oliver, 1994, Bitner & Hubbert, 1994
Nature of Transaction	Satisfaction results from incident or episode specific reaction to a encounter	Quality is a summary reaction to a long term relationship or multiple encounters	Rust and Oliver, 1994, Folkes, 1994
Consumer's Evaluation Process	Comparative Standard (subjective)	Cumulative or additive Standard (difference score)	Parasuraman et al, 1985,1988; Rust and Oliver, 1994; Westbrook and Reilly, 1982,
Evaluation Norm	Brand-cued evaluation	Category cued evaluation	Woodruff, 1983
Evaluation Attributes	Pre-experience attributes are confirmed/ disconfirmed in post- experience phase	Evaluation attributes generated during or after experience	Mc Gill; 1992; Anderson, 1994
Evaluation Dimensions	Dimensions are not specified	Five dimensions specified	Parasuraman et al, 1985,1988
Relationship between pre and post experience evaluations	No relationship between pre-experience expectations; post experience evaluations are assumed	Pre and post experience attributes are assumed to fall along the same dimensions	Cadote et al, 1987; Cronin & Taylor, 1992
Relationship between satisfaction and quality	Satisfaction is antecedent to Quality at transaction specific level	Quality is antecedent of Satisfaction in Global Measures	Rust & Oliver, 1994, Bolton & Drew, 1991,
Dominant Standard - Expectations construct	Forecast Expectations or Normative Expectations	Normative or Ideal Expectations	Boulding, 1993, Oliver, 1996; Parasuraman et al, 1988; Spreng, 1996; Teas, 1993, Woodruff et al, 1983,

Table 3**Origin of Items Included in ARTSQUAL**

Item	Brief Description	Origin
1	Physical Facilities	SERVQUAL
2	Employees Neat Appearance	SERVQUAL
3	Range of Food and Beverages	New
4	Range of Appropriate Souvenirs	New
5	Appropriateness of Lighting	New
6	Gallery Will Solve Visitor Problems	SERVQUAL
7	Provision of Service at Promised Times	SERVQUAL
8	Display of Advertised Paintings	New
9	Authenticity of Attribution of Art Works	New
10	Employees Provide Prompt Service	SERVQUAL
11	Employees' Willingness to Help	SERVQUAL
12	Employees Instil Confidence	SERVQUAL
13	Feelings of Safety	SERVQUAL
14	Ease of Movement/ traffic	New
15	Appropriate Background Information on Artists	New
16	Convenience of Operating Hours	SERVQUAL
17	Understanding Visitor Needs	SERVQUAL
18	Minimize Waiting Lines (Ticketing Queues)	New
19	Interpretation of Collection	New

Table 4
Standard Instructions for Expectations in Two Versions of the Instrument

Ideal Expectations (E_i)

Respondent Group: Post- Experience

Origin of Instructions: Derived from SERVQUAL

Based on your experiences as a visitor to galleries, please think about the kind of gallery that would deliver (excellent quality service) Think about the kind of gallery with which (you would be pleased to do business). Please show the extent to which such a gallery would possess the feature described by each statement. If you feel that a feature is not all essential for excellent galleries, circle the number 1. If you feel that the feature is (absolutely essential) for excellent galleries circle 5. If your feelings are less strong, circle one of the numbers in the middle. There are no right or wrong answers - all we are interested in is a number that truly reflects your feelings.

Forecast Expectations (E_f)

Respondent Group: Pre-Experience

Origin of Instructions: Modified version of SERVQUAL

Based on what you have seen and heard about the Rembrandt Exhibition at the National Gallery of Victoria (NGV), think about your expectations. The following set of statements related to your feelings about the NGV. For each statement, please show the extent to which you believe that the NGV will have the feature described by the statement. Circling a 1 indicates that you strongly disagree that the NGV has that feature and 5 indicates that you strongly agree. You may circle any of the numbers in the range to indicate how strong your feelings are. There are no right or wrong answers - all we are interested in is the number that best indicates your perception about the NGV.

Table 5 Comparison of Samples					
Demographic	Respondent Group		Total Sample	Z Score	Significance (0.05)
	Pre - Experience	Post - Experience			
Sample Size (n)	195	251	446		
Gender (%)					
Male	31.8	39.8	36.5	1.78	N/S
Female	67.7	59.8	63.5	1.73	N/S
Education (%)					
Secondary	14.9	17.5	17.3	0.70	N/S
Tertiary	79.5	77.3	78.3	0.55	N/S
Other	3.6	5.2	4.4	0.80	N/S
Age (%)					
18-29 years	32.8	24.3	28.1	1.97	*
30-39 years	23.6	18.7	20.9	1.25	N/S
40-49 years	15.9	16.3	16.2	0.12	N/S
50-59 years	17.9	22.3	20.4	1.16	N/S
60+ years	9.2	18.3	14.4	2.90	*
Number of Information Sources Consulted Prior to Visitation (%)					
No Sources	6.0	8.7	7.3	1.10	N/S
One Source	26.5	28.2	27.3	0.40	N/S
2- 3 Sources	45.3	48.0	46.6	0.60	N/S
4 + Sources	22.0	15.1	18.8	1.85	N/S
Prior Visitation of Major Art Exhibitions in Past 3 Years (%)					
No Prior	21.0	27.5	24.7	1.61	N/S
1 Exhibition	15.4	17.5	16.6	0.60	N/S
2-3 Exhibitions	35.9	26.7	30.7	2.08	*
4+ Exhibitions	27.7	28.3	28.0	0.14	N/S

Table 6**Comparative Summary of Factor Analysis for Two Respondent Groups**

Respondent Group	Perceptions			Expectations			Service Quality (P-E)		
	Mean	SD	Number of Factors	Mean	SD	Number of Factors	Mean	SD	Number of Factors
Pre Experience (E _f)	3.87	0.52	4	3.98	0.44	5	(0.12)	0.52	6
Post-Experience (E _i)	3.95	0.53	4	4.14	0.42	4	(0.19)	0.52	5
Total Sample	3.92	0.51	-	4.05	0.44	-	(0.16)	0.52	-

Scale of 1-5, where 1 equals low and 5 equals high

Table 7
T-Test for Equality of Means

Item/ Brief Description	Mean		T	Significance (2 Tailed)
	Pre- Experience Group (E _f) n= 195	Post Experience Group (E _i) n= 251		
Expectations	3.98	4.14	4.13	0.000**
Perceptions	3.87	3.95	1.61	0.108
Service Quality Gap	-0.12	-0.19	-1.41	0.160
Expectation Items				
1 Facilities Visually Appealing	3.98	4.31	4.04	0.000 **
2 Employee's Neat Appearance	4.10	3.90	-2.48	0.016**
3. Range of Food and Beverages	3.53	3.54	-0.38	0.971
4. Range of Souvenirs	4.63	3.46	-0.71	0.476
5. Appropriate Lighting Levels	4.36	4.79	3.00	0.003**
6. Gallery Solves Visitor Problems	4.43	4.55	2.65	0.008**
7. Services Delivered at Promised Times	4.58	4.60	2.45	0.015**
8. Displays All Advertised Art Works	4.57	4.60	0.33	0.746
9. Documents Authenticity of Art Works	4.48	4.48	0.19	0.194
10. Employees Provide Prompt Service	4.32	4.44	1.80	0.073
11. Employee's Willingness to help	4.37	4.57	2.92	0.004**
12. Employees Instil Confidence	4.12	4.26	1.64	0.102
13. Feelings of Safety	4.45	4.43	-0.26	0.797
14. Ease of Movement	4.12	4.36	3.18	0.002**
15. Background Info on Artist	4.50	4.69	3.28	0.001**
16. Convenient Operating Hours	4.32	4.61	4.06	0.000**
17. Gallery Understands Visitors Needs	4.01	4.30	3.73	0.000**
18. Minimizes Waiting Lines	4.08	4.56	6.87	0.000**
19. Interpretation of Collection	4.34	4.54	2.80	0.005**

Scale of 1-5, where 1 equals low and 5 equals high
<0.05

**Table 8
Correlation Matrix**

Correlations		Gap (SQ)		Perceptions	Independent Measures of Service Quality		
		P - E _i	P-E _f		Satisfaction	Propensity to Revisit	Propensity to Recommend Service
Discrepancy (SQ)	P-E _i	1.000					
	P-E _f		1.00				
Perceptions		0.62 **	0.65**	1.00			
Satisfaction		0.31 **	0.35**	0.45 **	1.00		
Propensity to Revisit Service		0.04	0.27**	0.40 **	0.73**	1.00	
Propensity to Recommend Service		0.27**	0.27**	0.23**	0.21**	0.29**	1.00

** Correlation is significant at the 0.01 level

Figure 2A
Comparison of Pre and Post Experience Factor Structures for the Pre-Experience Group

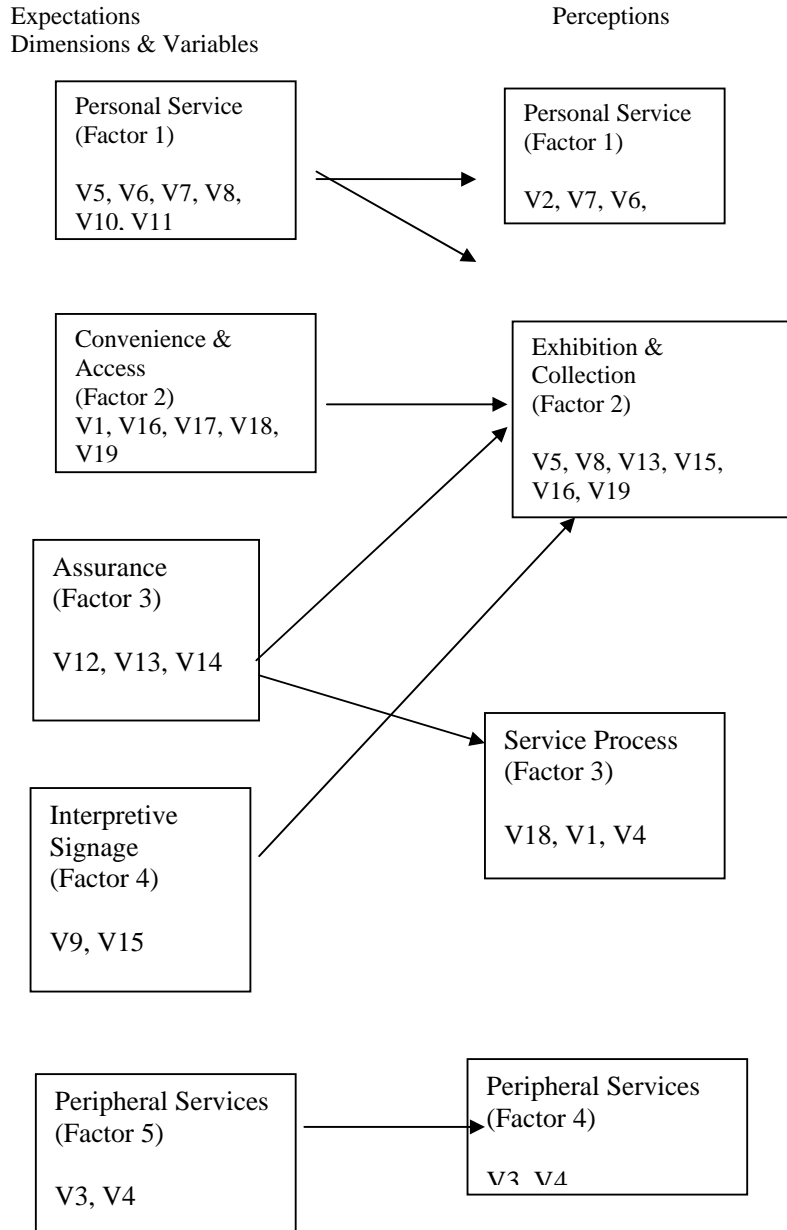


Figure 2B
Comparison of Pre and Post Experience Factor Structures for the Post-Experience Group

