Service Quality in the Summer Session:

A SERVQUAL Analysis

Richard C. Lee & Chunju Chen
University of Wisconsin-Whitewater
& D. Deming Wang
Alma College

Abstract

SERVQUAL is a diagnostic survey tool, originally developed for use in the corporate sector, for measuring and managing service quality (SQ). In the past ten years, SERVQUAL has been applied widely and successfully in a variety of public and private service contexts including, to a limited extent, higher education. This measurement system, which emanates from the theories of Total Quality Management and Continuous Quality Improvement and which views client assessment of service as paramount, defines SQ, numerically, as the difference (or gap) between what clients feel a service firm should offer (expectations) versus their evaluations of the actual performance of the service firm.

Our study, conducted in the summer of 1998, represents the first reported effort to use SERVQUAL to survey summer session clients. Five hundred seventy-four graduate and undergraduate students and seventy-four members of the Summer College faculty at the University of Wisconsin-Whitewater were administered questionnaires, the primary purpose of which was to compare students' expectations for and satisfactions with various summer session services. The findings, which

also feature information about the faculty's perceptions of students' expectations and satisfactions, are discussed as they relate to efforts for improving summer session services, facilitating decision-making and identifying future directions for research.

Introduction and Background Literature

The summer academy, as Schejbal (1998) and others (Martin, 1998; Trewatha, Coulter, & Coulter, 1998) have noted, is undergoing significant change. Once a barely visible and not highly regarded enterprise, the summer session is now viewed by presidents and provosts as a major contributor to a number of the university's most valued strategic objectives. These include, but are not limited to, helping students reduce time to degree, promoting access for non-traditional students, offering a forum to "pilot test" innovative courses, pedagogies, and academic programs and, perhaps most importantly, serving as an essential source of tuition revenue, part of an increasingly indispensable contribution to the university's overall budget.

As universities nationwide expand their summer session programs and as competition for tuition-paying summer students intensifies, summer session deans and directors, like their counterparts in continuing education, have been looking to the corporate sector for ideas on how to improve the marketing and financial performance of their programs. Over the past fifteen years, the concept of service quality (SQ)—defined as the difference between a client's expectations for and actual satisfaction with a service—has emerged as an important topic for research and discussion in the corporate academic literature. Several studies, undertaken in a variety of service industries, have documented a strong correlational relationship between improvements in service quality and such positive business outcomes as increased market share (Buzzell & Gate, 1987), enhanced profitability (Rust & Zahorik, 1993) and increases in client satisfaction (Bolton & Drew, 1991) and retention (Reichheld & Sasser, 1990). In today's economy, where over 70 percent of the businesses are primarily or exclusively service-oriented (Dean, 1999), service quality is widely regarded as a driver of corporate marketing and financial performance.

In the past ten years, as higher education has faced continual cutbacks and increased competition for students, the idea of service quality has captured the attention of faculty and administrators particularly those working in publicly assisted universities. A small number of studies, conducted chiefly in the last seven years, have examined strategies for improving service quality in university settings mainly in

the areas of managing library and information technology services (Nitecki, 1996) and streamlining admissions processes (Nagy, Cotter, Erdman, Koch, Ramer, & Wiley, 1993).

SERVQUAL, developed and refined by Parasuraman and his colleagues (Parasuraman, Zeithaml, & Berry, 1990, 1991), has emerged as the instrument of choice for measuring service quality in both the corporate and educational sectors. Taking its theoretical roots from Deming's theories of Total Quality Management and Continuous Quality Improvement (Deming, 1982), SERVQUAL is founded on the premise that the client's assessment of SQ is of paramount importance. In its original form, SERVQUAL, a survey instrument, contains twenty-two pairs of Likert-type items each scored on a seven point scale. One-half of these items measures the client's expected level of service (1=expects little; 7=expects a lot); the other twenty-two matching items measures the level of satisfaction (or perception) with a service (1=very dissatisfied; 7=very satisfied). Clients complete the survey, both the expectation and satisfaction assessment items, at the end of the service experience.

Service quality is defined, numerically, by the difference in scores (referred to as the gap scores) between the expected level (what the client feels a firm should offer by way of service) and the satisfaction level (evaluations of actual performance). In addition, the twenty-two matching items are grouped into five areas or dimensions of service quality: (1) *Reliability*, defined as the ability to perform the promised service dependably and accurately; (2) *Assurance*, which refers to the knowledge and courtesy of employees and the ability to convey trust and confidence; (3) *Tangibles*, which addresses the appearance of physical facilities, equipment, personnel, and communication materials; (4) *Empathy*, the provision of caring, individualized attention to clients; and (5) *Responsiveness*, defined as the willingness to help clients and to provide prompt service.

The main focus in a SERVQUAL analysis is on identifying differences or gaps between client expectations of and satisfactions with service. However, it is not uncommon to assess the viewpoints of other stakeholders, especially those responsible for providing the service. In these instances, stakeholders are asked to complete the same twenty-two items and to offer their perceptions of what they believe clients are thinking relative to expectations and satisfactions with service. The idea behind stakeholder evaluations, according to the authors of SERVQUAL, is that service quality will be enhanced as the gap between what service providers perceive their clients are thinking and what the clients actually think is closed.

SERVQUAL is designed, with appropriate modifications, for use in

measuring service quality across a broad range of service industries. Our literature review, for example, identified fifty-one published studies in which the SERVQUAL system was used to measure service quality in a variety of industrial, commercial, and not-for-profit settings. These include retailing (Carman, 1990), dental services (Carman, 1990), hotels (Saleh & Ryan, 1992), travel and tourism (Fick & Ritchie, 1994), hospitality (Johns, 1993), car servicing (Bouman & Van de Wiecke, 1992), accounting firms (Freeman & Dart, 1993), architectural services (Baker & Lamb, 1993), recreational services (Taylor, Sharland, Cronin, & Bullard, 1993), hospitals (Babakus & Mangold, 1992), banking (Kwon & Lee, 1994), government (Scott & Shieff, 1993), and, as noted above, higher education (McElwee & Redman, 1993).

Objectives of Study

This study expands the existing research base by serving as an initial effort to apply the SERVQUAL measurement system to access the quality of services offered during the summer session. The principle objectives of the research were these:

1. To compare student expectations for and eventual satisfaction with key summer session services;

2. To compare the students' expectations for service quality with what faculty perceived the students' expectations to be;

3. To compare the students' satisfactions with service quality with what faculty perceived the students' satisfactions to be; and

4. To compare the students' ratings on the relative importance of the five service dimensions-reliability, assurance, tangibles, empathy, and responsiveness-with what faculty perceived the students' ratings to be.

The Setting

The study was conducted during the second six-week session (June 15-July 24) of the summer of 1998 on the campus of the University of Wisconsin-Whitewater (UW-W)—a public, coeducational comprehensive university with an academic year enrollment of approximately 11,000 and a summer enrollment, including on-campus and off-campus students, of about 5,000. UW-W, with an annual operating budget of about 120 million dollars, is one of twenty-six institutions in the University of Wisconsin System. The university, with 450 faculty (and a

standard teaching load of twelve credits), is comprised of 31 academic departments grouped into four colleges-Arts and Communication, Business and Economics, Education, and Letters and Sciences-that focus on liberal arts and sciences and professional programs at the undergraduate and masters level. About 47 percent of the summer enrollment is comprised of traditional students (18-22) enrolled on a full-time basis during the academic year; the other 53 percent is made up of part-time, non-traditional aged students, primarily graduate students from Colleges of Education and Business and Economics.

The Sample

Five hundred and forty-seven students, exactly one-half of the number of students enrolled in on-campus courses during the second six-week session of the summer, were selected, completely at random, to receive the SERVQUAL survey. The other half of the students enrolled in on-campus courses during this period received a different survey the results of which the authors hope to release in a future edition of *Summer Academe*. Given the size of the UW-W summer school population, a sample of 384 students would have been considered adequate using the criteria for determining sample size articulated by Krejcie and Morgan (1970).

Seventy-four members of the UW-W Summer College faculty—the entire population of faculty teaching summer classes on campus during the second six-week session—completed the faculty survey. All but four of those completing the faculty survey were tenured or on tenure-line faculty appointments.

Instrument

Students and faculty completed separate but similarly structured questionnaires comprised of two major sections.

Section 1 of the questionnaire, titled *Expectations and Perceptions of the Summer Session*, consisted of twenty-two matched items adapted from the original SERVQUAL instrument. For each item, students were asked to rate, on a seven point Likert scale, what they expected in the way of services before enrolling (1=expected little; 7=expected a lot) and how satisfied they were with the quality of services received (1=very dissatisfied; 7=very satisfied). Faculty, on their questionnaire, were asked to respond to the same set of matched items using the same scale but were directed to base their ratings on what they thought students expected in services and how satisfied they thought students were with the quality of services.

In an effort to establish face validity for our modifications of the original SERVQUAL items (modifications designed to make the instrument relevant to our service context, the Summer Session), two panels-the first comprised of fifteen summer research faculty who did not teach during the time of the study and the second made up of forty UW-W summer students who were not enrolled during the period of the study-were asked to complete the survey and then to participate in separate ninety minute focus group sessions (one for students, one for faculty), directed by the authors of this study. The purpose of these sessions was to critique the questionnaire with respect to format, clarity of wording, the sequence of questions, time needed to complete the survey, and most importantly, the relevancy of the items for undertaking a comprehensive and meaningful assessment of the quality of summer session services. This process, which yielded several meaningful suggestions for change which were eventually incorporated into the final survey, closely paralleled that used by other researchers (e.g., Chen, 1993) who successfully adapted SERVQUAL for use in non-business-related service contexts.

Section 2 of the questionnaire, titled *The Five Quality Features of the Summer Session*, asked students to use a point system to rank the importance (to them) of each of SERVQUAL's five dimensions of service quality-reliability, assurance, tangibles, empathy, and responsiveness. Specifically, students were directed to assign point values to each of the dimensions but with the caveat that their point distributions must total (and not exceed) 100 points. If students allocated exactly the same number of points to two or more dimensions, they were further directed to select which of the dimensions to which they had initially assigned equal value was most important, second most important and so on. In this section of the faculty survey, faculty were asked to follow the same point assignment procedure but to base their judgements on how they thought students would rank the relative importance of the five dimensions of quality.

The survey, which took about twenty minutes to complete, was administered at the beginning of class on the second-to-the-last class session of the term by specially trained graduate students none of whom were enrolled in summer school at the time of the study. Faculty completed their survey, independently, at the same time as the students but in a separate room, usually their offices. Training for the graduate students who administered the survey lasted about forty minutes and was conducted by the authors. It consisted of an overview of the SERVQUAL system, directions for administering the questionnaire, and a review of the kinds of questions students were likely to ask. Copies of each questionnaire contained written directions that assured students of

confidentiality and that were read aloud before students started filling out the questionnaire. Those administering the questionnaire remained in class until all students finished. The questionnaires were collected first from the students and then from the instructor.

The purpose of the study, its design, and all relevant procedures and materials, including the questionnaire itself, were reviewed and approved, prior to the start of the study, by the UW-W Institutional Research Board in accordance with University policy.

Data Analysis

Questionnaire results were analyzed using the Statistical Package for the Social Sciences (SPSS, Inc., 1999). Both descriptive and inferential statistics, including frequencies, means, and standard deviations, were calculated for all key variables. Mean gap scores were devised by calculating the difference between expectations and satisfactions of the summer session clientele for each of the twenty-two matched SERVQUAL items. A positive gap score meant that the level of satisfaction with a service exceeded expectations. A negative gap score meant that initial expectations were not realized. A zero gap score meant that the services delivered were commensurate with initial expectations.

Beyond basic descriptive and inferential measures, Borg's (1987) index of practical significance was employed to determine whether any of the gap scores achieved significance in practical terms. This coefficient, referenced as PS, is computed by taking the ratio of the difference between means of two variables to the pooled standard deviation of the measures as illustrated in the following formula:

$$\overline{PS} = \frac{\overline{X}_1 - \overline{X}_2}{S_{pooled}}$$

According to Borg (1987), a result of .50 or larger achieves practical significance; other researchers, depending on the unique circumstances of their research, employ a threshold of .30 or .40.

The index of practical significance is employed in two kinds of situations. First, the difference between means may not be statistically significant because the sample size is too small but might be practically significant because of the large difference between means and the relative small magnitude of the joint score variations. As Burns (1980) points out: "Because a result does not reach statistical significance in no way suggests that it cannot be practically significant" (p.35).

The second situation for employing an index of practical significance occurs when the difference between two means is statistically significant

because of a large sample but may not be practically significant because of small actual differences between the mean scores of the two variables and the relatively sizeable variation among the scores in each group. Best (1970) speaks to this issue: "It is also important to note that a finding that is statistically significant may not be a measure of its usefulness in making a practical decision. A test of significance merely indicates there is a genuine relationship that r is not 0. Statistical significance indicates the probability the finding did not result from sampling error" (p.274).

Findings and Implications

This research, with a total of more than six hundred respondents, generated a wealth of data not all of which can be reported here. In future publications the authors' hope to examine extensively various aspects of our data pool. For purposes of this study, we will summarize the main findings as they relate to the four research objectives. In addition we will attempt to identify implications of the research for summer session practitioners and outline directions for future research.

Objective 1: Comparison of Student Expectations and Satisfactions with Summer Services

Table 1 presents a comparison of the students' expectations for and satisfactions with the quality of summer session services as indicated by their ratings on each of the twenty-two SERVQUAL items adapted for use in this study. Means, standard deviations, P-values for t-tests, gap scores and practical significance (PS) scores are presented for each item. In general, student expectations for summer services were high compared to the mean expectation ratings reported in previous SERVQUAL studies of clients from other service environments. Specifically, our student ratings ranged from a mean of 4.95 to 6.31 across the twenty-two items studied. For the most part, expectation scores were higher for those items assessing the skills and abilities of summer session staff and their willingness to offer assistance, and lower for items measuring the attractiveness of the physical facilities and the appropriateness of staff attire.

Several interesting and, for us, somewhat disconcerting, patterns of responses emerged from the data in Table 1. Student expectations for the first five items, collectively known as tangibles, were significantly lower than their level of satisfaction indicating that the students were more satisfied than they initially anticipated with the appearance of physical facilities, equipment, personnel and communication materials. Four

Table 1

Comparison of clientele's expectation of the summer session services and their satisfaction of the services received: Means, Standard Deviations, p-values of t test, Gap Scores, and Practical Significance Scores

Item	$\bar{X}$		S.D.		d.f.	Gap	p-val	Prac sig
	Exp	Sat	Exp	Sat				
1. Modern-looking technologies (e.g. Internet, Web, lab equip.)	5.34	5.53	1.65	1.32	533	0.19	.01**	.11
2. Visually appealing physical facilities for teaching and learning	5.14	5.19	1.44	1.33	533	0.05	.44	.03
3. Employees (e.g., secretaries, instructors, etc.) dress in an appropriate fashion	4.95	5.82	1.69	1.18	534	0.87	.00**	.51~
4. Visually attractive materials (e.g., publications, brochures, or bulletins)	5.06	5.40	1.54	1.25	534	0.34	.00**	.23
5. Clean and well-maintained learning environment (classrooms, labs, library, etc.)	5.96	5.85	1.14	1.17	534	-0.11	.04**	.09
6. Instructors and staff who promise to do something by a certain time keep their promise	6.20	6.05	1.15	1.09	533	-0.15	.00**	.12
7. When a student has a problem, the summer session staff show a sincere interest in solving it	6.16	5.97	1.09	1.17	532	-0.19	.00**	.15
8. Summer session staff are timely in responding to students' questions or concerns	6.13	6.04	1.07	1.06	532	-.0.09	.06	.08
9. Summer sessions programs provide up-to-date, accurate and research-based information	6.21	5.99	1.05	1.15	532	-0.22	.00**	.21
10. Summer session office informs students effectively about their courses and services	5.80	5.31	1.30	1.42	532	-0.49	.00**	.33~
11. Summer session staff give prompt service to students	5.98	5.79	1.16	1.14	532	-0.19	.00**	.16
12. Summer session staff give students individual attention	5.88	5.81	1.26	1.21	532	-0.07	.19	.06
13. Summer session administrators ensure that their instructors and support staff give students individual attention	5.70	5.71	1.43	1.21	532	0.01	.95	.01
14. Summer session offices and administrators offer convenient hours for all students	5.72	5.06	1.39	1.65	532	-0.66	.00**	.37~
15. Summer session staff have best interests of students in mind	6.04	5.71	1.14	1.26	532	-0.33	.00**	.25
16. Summer session staff understand specific needs of students	5.97	5.61	1.16	1.26	532	-0.36	.00**	.28
17. Instructors and staff are willing to help students	6.31	6.18	.99	.99	532	-0.13	.01**	.12
18. Instructors and staff manage to find time to respond to students' requests	6.17	6.08	1.08	1.03	532	-0.09	.08	.08
19. Instructors and staff possess relevant knowledge to answer students' questions or know where & how to obtain information	6.27	6.22	1.01	.93	532	-0.05	.23	.05
20. Instructors and staff are consistently courteous with students	6.30	6.20	1.00	.98	532	-0.10	.03*	.09
21. Instructors and staff make students feel confident and students can trust them	6.22	6.09	1.05	1.06	532	-0.13	.01**	.11
22. Instructors and staff are never too busy to give students individual attention	6.06	5.94	1.14	1.07	532	-0.12	.03*	.10

Notes:
1. Exp=Expectations, Sat=Satisfaction.
2. ** and * indicate strategically significant at the α=.01 & .05 levels, respectively.
3. ~indicates practically significant based on Borg's (1987) rule of thumb.

positive mean gap scores-reflecting greater satisfaction over initial expectations-in this five item set (1,3,4, and 5)-achieved statistical significance at either the .01 or .05 levels and one item (#3, employees dress in an appropriate fashion) met Borg's test of practical significance.

In contrast, for those items that made up the four other dimensions of service quality—reliability (items 6-9), responsiveness (items 10-13), assurance (items 14-17) and empathy (items 18-22)—expectations were considerably higher than satisfactions suggesting that on these critical dimensions of services, our students were disappointed with services received. Specifically, the gap scores for twelve of these items (6,7,9,10,11,14,15,16,17,20,21 and 22)—all of which were negative, reflecting lower satisfaction compared to initial expectations-achieved statistical significance and scores for one of these items (#14, summer session offices and departments offer convenient hours for all students) reached practical significance. These findings suggest that several of our service areas are in need of improvement.

Objective 2:
Student Expectations and Instructors' Perceptions of Student Expectations

Table 2 presents a comparison of student expectations and the instructors' perception of student expectations for summer session services. In general, that data reveal that the instructors thought that their students' expectations for the first five items (tangible) would be lower that they actually were. For items 3 and 5, differences between the instructors' perceptions and what students recorded as their expectations were both statistically and practically significant. In contrast, for most of the items that make up the other four dimensions of service quality, the data show that instructors thought the students' level of expectation with services would be higher than they actually were. These differences, however, with the exception of item six, were neither statistically nor practically significant.

The highest mean rating recorded in Table 2 for the instructors was on item 6 (6.46). This indicated that the instructors understood that the students were concerned with faculty keeping their promises and doing so in a timely manner. Still, what instructors perceived student expectations for the item to be was significantly higher than what the students actually recorded.

In general, the data in Table 2 indicate a higher sense of awareness on the part of instructors regarding student expectations for summer services. Indeed, on nine of the items (6,7,8,9,10,11,14,18, 20) faculty

Table 2

Comparison of clientele's expectation and the providers' perception of their clientele's expectations of the summer session programs: Means, Standard Deviations, p-values of t test, Gap Scores, and Practical Significance Scores

Item	$\bar{X}$		S.D.		Valid N		Gap	p-val	Prac sig
	Cli	Pro	Cli	Pro	Cli	Pro			
1. Modern-looking technologies (e.g. Internet, Web, lab equip.)	5.33	4.62	1.65	1.67	534	74	0.71	.00**	.43~
2. Visually appealing physical facilities for teaching and learning	5.13	4.78	1.44	1.30	534	74	0.35	.03*	.26
3. Employees (e.g., secretaries, instructors, etc.) dress in an appropriate fashion	4.95	3.92	1.69	1.59	535	74	1.03	.00**	.63~
4. Visually attractive materials (e.g., publications, brochures, or bulletins)	5.05	4.70	1.54	1.39	535	74	0.35	.05*	.24
5. Clean and well-maintained learning environment (classrooms, labs, library, etc.)	5.96	5.46	1.14	1.45	535	74	0.50	.01**	.38~
6. Instructors and staff who promise to do something by a certain time keep their promise	6.19	6.46	1.15	.62	534	74	-0.27	.00**	.30~
7. When a student has a problem, the summer session staff show a sincere interest in solving it	6.15	6.18	1.09	1.08	533	73	-0.03	.65	.03
8. Summer session staff are timely in responding to students' questions or concerns	6.13	6.23	1.07	.80	533	74	-0.10	.36	.11
9. Summer sessions programs provide up-to-date, accurate and research-based information	6.20	5.86	1.05	1.29	533	73	0.34	.06	.29
10. Summer session office informs students effectively about their courses and services	5.80	5.93	1.30	1.20	533	72	-0.13	.17	.10
11. Summer session staff give prompt service to students	5.97	6.07	1.16	1.04	533	72	-0.10	.18	.09
12. Summer session staff give students individual attention	5.88	6.00	1.26	1.06	533	72	-0.12	.13	.10
13. Summer session administrators ensure that their instructors and support staff give students individual attention	5.69	5.41	1.43	1.39	533	71	0.28	.42	.20
14. Summer session offices and administrators offer convenient hours for all students	5.71	5.78	1.39	1.25	533	72	-0.07	.34	.05
15. Summer session staff have best interests of students in mind	6.04	6.04	1.14	1.19	533	71	0.00	.41	.00
16. Summer session staff understand specific needs of students	5.96	5.76	1.16	1.21	533	72	0.20	.47	.17
17. Instructors and staff are willing to help students	6.31	6.26	.99	.90	533	73	0.05	.94	.05
18. Instructors and staff manage to find time to respond to students' requests	6.16	6.27	1.08	.83	533	74	-0.11	.31	.11
19. Instructors and staff possess relevant knowledge to answer students' questions or know where & how to obtain information	6.26	6.28	1.01	.87	533	74	-0.02	.82	.02
20. Instructors and staff are consistently courteous with students	6.29	6.30	1.00	.81	533	74	-0.01	.98	.01
21. Instructors and staff make students feel confident and students can trust them	6.21	5.97	1.05	1.03	533	74	0.24	.06	.23
22. Instructors and staff are never too busy to give students individual attention	6.05	5.88	1.14	1.12	533	74	0.17	.22	.15

Notes:
1. Cli=Clientele, Pro=Providers.
2. ** and * indicate strategically significant at the α=.01 & .05 levels, respectively.
3. ~indicates practically significant based on Borg's (1987) rule of thumb.

perceptions of student expectations were even higher that what these expectations turned out to be.

Objective 3:
Student Satisfaction and Instructors' Perceptions of Student Satisfaction

Table 3 presents a comparison of the recorded level of student satisfaction with summer services and the faculty's perception of what that level of satisfaction would be. Overall, unlike the data from Table 2, the gap scores here are all positive indicating that the faculty thought that the level of student satisfaction would be lower than it turned out to be. For the majority of items, the differences in mean gap scores were both statistically and practically significant. Clearly, students were more satisfied with the quality of summer services than their instructors thought they would be.

Objective 4:
The Five Service Quality Dimensions

Table 4 summarizes the importance ratings assigned by students to each of the service quality dimensions and compares them to what faculty thought the student ratings would be. These data show a remarkable level of consistency between faculty perceptions and the actual ratings assigned by students. Both groups assigned greatest importance to the second dimension-the ability to perform the desired services in a timely, dependable, and accurate manner. The fifth dimension—caring, individualized attention for clients—was ranked by both groups as the second most important aspect of service quality. The first dimension—appearance of physical facilities, equipment, personnel and communication materials—was ranked least important by both students and faculty. Taken together, these data suggest that our summer faculty clearly understand what dimensions of service quality were of greatest importance to our students.

Implications

Several implications for managing and improving summer programs can be derived from the results of our study.

First, the data suggests that our campus must work to improve perceptions among our students regarding a number of summer session program services including, most notably, the extent to which faculty keep commitments to students in a timely manner; the promptness with which summer staff respond to student questions and concerns; the

Table 3

Comparison of clientele's satisfaction and the providers' perception of their clientele's satisfaction of the summer session programs: Means, Standard Deviations, p-values of t test, Gap Scores, and Practical Significance Scores

Item	$\bar{X}$		S.D.		Valid N		Gap	p-val	Prac sig
	Cli	Pro	Cli	Pro	Cli	Pro			
1. Modern-looking technologies (e.g. Internet, Web, lab equip.)	5.55	5.06	1.32	1.16	534	69	0.49	.01**	.38~
2. Visually appealing physical facilities for teaching and learning	5.20	4.62	1.33	1.20	534	69	0.58	.00**	.44~
3. Employees (e.g., secretaries, instructors, etc.) dress in an appropriate fashion	5.83	4.88	1.18	1.28	535	69	0.95	.00**	.75~
4. Visually attractive materials (e.g., publications, brochures, or bulletins)	5.41	5.04	1.25	1.06	535	69	0.37	.04*	.31~
5. Clean and well-maintained learning environment (classrooms, labs, library, etc.)	5.85	5.09	1.17	1.21	535	69	0.76	.00**	.62~
6. Instructors and staff who promise to do something by a certain time keep their promise	6.06	5.84	1.09	.97	534	70	0.22	.09	.21
7. When a student has a problem, the summer session staff show a sincere interest in solving it	5.96	5.78	1.17	.97	533	67	0.18	.75	.16
8. Summer session staff are timely in responding to students' questions or concerns	6.05	5.71	1.06	1.01	533	68	0.34	.09	.31~
9. Summer sessions programs provide up-to-date, accurate and research-based information	5.99	5.64	1.15	1.24	533	67	0.35	.23	.28
10. Summer session office informs students effectively about their courses and services	5.32	5.33	1.42	1.11	533	67	-0.01	.32	.01
11. Summer session staff give prompt service to students	5.79	5.58	1.14	1.06	533	65	0.21	.84	.17
12. Summer session staff give students individual attention	5.82	5.59	1.21	1.08	533	66	0.23	.86	.18
13. Summer session administrators ensure that their instructors and support staff give students individual attention	5.71	5.03	1.21	1.20	533	66	0.68	.02*	.50~
14. Summer session offices and administrators offer convenient hours for all students	5.07	5.01	1.65	1.17	533	68	0.06	.72	.04
15. Summer session staff have best interests of students in mind	5.71	5.52	1.26	1.11	533	66	0.19	.99	.15
16. Summer session staff understand specific needs of students	5.62	5.19	1.26	1.12	533	67	0.43	.13	.33~
17. Instructors and staff are willing to help students	6.18	5.86	.99	1.05	533	69	0.32	.05*	.30~
18. Instructors and staff manage to find time to respond to students' requests	6.08	5.70	1.03	1.12	533	69	0.38	.03*	.42~
19. Instructors and staff possess relevant knowledge to answer students' questions or know where & how to obtain information	6.22	5.83	.93	1.00	533	69	0.39	.01**	.39~
20. Instructors and staff are consistently courteous with students	6.20	5.77	.98	1.13	533	70	0.43	.00**	.41~
21. Instructors and staff make students feel confident and students can trust them	6.09	5.76	1.06	1.03	533	70	0.33	.01**	.31~
22. Instructors and staff are never too busy to give students individual attention	5.95	5.27	1.07	1.24	533	70	0.68	.00**	.59~

Notes:
1. Cli=Clientele, Pro=Providers.
2. ** and * indicate strategically significant at the α=.01 & .05 levels, respectively.
3. ~indicates practically significant based on Borg's (1987) rule of thumb.

Table 4

Comparison of the Importance Ratings
on the Five Service Quality Dimensions:
Clientele vs. Providers

Dimension	Item Set	Clientele ($\bar{x}$ / Rank)	Providers ($\bar{x}$ / Rank)
I. Appearance of physical facilities, equipment, personnel, and communication material	1-5	13.51 (5th)	12.77 (5th)
II. Ability to perform the desired services timely, dependably, and accurately	6-9	24.42 (1st)	24.57 (1st)
III. Willingness to help clientele and provide prompt service	10-13	20.71 (2nd)	19.32 (2nd)
IV. Knowledge and courtesy of the employees and their ability to convey trust and confidence	14-17	18.80 (4th)	16.74 (4th)
V. Caring and individualized attention for the clientele	18-22	19.67 (3rd)	18.22 (3rd)

Note:
The information in this table is based on respondents' allocations of a total of 100 points.

knowledge of summer staff about issues raised by students; the extent to which instructors and support staff are willing to make time for students; our capacity to keep students effectively informed about courses and services; and efforts to schedule hours in departments and administrative offices that are more convenient for students. While it remains possible that our students are unusually demanding, our guess is that many of these same issues would arise in a SERVQUAL study in most any other university setting. Our strategy for addressing these and other service concerns raised by the study will focus on making faculty, administrators and support staff aware of our findings and to work with representatives of these groups, plus the university's summer session advisory committee, to develop an action plan that emphasizes accountability for all concerned.

Secondly, our results revealed that the so-called tangibles dimension of service quality-i.e., the appearance of the physical facilities, the cleanliness and upkeep of the physical plant, the overall appearance and dress of faculty and support staff-is not as important to our students as other dimensions of SQ. This finding is consistent with what has been reported by others (e.g., Chen, 1993) who have undertaken SERVQUAL studies with clients from different service industries. Of course, UW-W is an attractive, clean, and well-maintained campus situated in a picturesque rural setting and the dress of our faculty and support staff—even during the casual, halcyon days of summer—is conventional, even conservative. Thus, for our students, because of the environment in which they are educated, tangibles may simply not be the same kind of issue it would be in another university setting.

A third implication flowing from our findings relates to how well our faculty appear to know the attitudes and perceptions of our students. Faculty are often portrayed by students and other critics of the academy as insouciant about student attitudes, feelings and needs. Our data suggests that this is not the case, and, if anything, faculty slightly overestimate the negative perceptions of students. Our view is that another SERVQUAL analysis conducted in a very different campus setting would still produce similar results and that, for the most part, university faculty are better informed about their students than they are given credit for.

A final and very important implication for our research is that it provides evidence that the SERVQUAL measurement system, which has been successfully and widely applied in a variety of public and private service contexts, is also an effective tool for assessing the quality of summer session services. Our experience suggests that this system is relatively easy to modify and administer and yields valuable information for assisting summer session deans and directors in improving programs and services.

Future Research

Since this study represents the first reported effort to use SERVQUAL to assess service quality in the summer session, the most obvious and immediate direction for future research is replication of our study in another or several other university summer programs. Such replications will not only further validate SERVQUAL for use in the summer enterprise but, equally importantly, generate data for comparison with our results. Future research might also assess stakeholders other than faculty—for example, administrators, support staff, community mem-

bers-to compare their perceptions of student expectations and satisfactions with what students actually record these expectations and satisfactions to be. Finally, SERVQUAL might also be applied to and validated with summer audiences other than students in credit courses including participants who regularly attend non-credit programs or those attending university-based summer youth camps targeted at high school aged students.

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This study was made possible by a research grant awarded to the authors by the North American Association of Summer Sessions.

The authors can be contacted at the following institutions: Richard C. Lee, Dean of Graduate Studies, Continuing Education, and Summer Session, University of Wisconsin-Whitewater, 800 West Main, Whitewater, Wisconsin 53190-0296 (telephone 414/472-1100 and e-mail <leer@uwwvak.uww.edu>); Chunju Chen, Director of Institutional Research, University of Wisconsin-Whitewater, 800 West Main, Whitewater, Wisconsin 53190-0296; D. Deming Wang, Chief Information Office, Alma College, Alma, Michigan 48801.