

**QUALITY IN EDUCATION:  
ACADEMIC EXPECTATION VS PERFORMANCE**

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**Abstract**

Expectations are the reference point students have coming into service experience in school while perceptions reflect the service as actually received from the school. The difference or the gap between perception and expectation could be used as an indicator of the quality score in schools. Therefore the objective of this research is to collect data and information regarding expectation and perception of students towards service quality of their schools. SERVQUAL instrument has been utilized in this research. Survey has been carried out at twelve schools in the Hulu Selangor District, the middle of Malaysia. The service dimensions being used in this research are tangibility, reliability, responsiveness, assurance and empathy. Data has been analysed in order to know the level of the service quality in schools. Service shortfalls have been identified and a few suggestions have been forwarded to overcome the shortfalls. The service quality then was compared with the students' academic performance to know the relationship between both aspects. The instrument contains sixty items altogether. Part A is regarding expectation and perception of the respondents towards their school. Part B is to identify the relative importance of each dimension of service quality while Part C is for respondents' profile. Some modifications have been made to the statements in the SERVQUAL instrument suitable to the education field.

**Introduction**

A concept and the instrument of SERVQUAL are being used productively in various context, culture and nation for measuring the service quality. It has also been applied in the commercialize as well as non-commercialize organization (Zeithaml & Bitner, 1996). This research is dealing with service quality which measure the school service quality from the students' point of view. Measuring quality is done by looking at the difference between perception and expectation of the students toward their school. The service quality is based on five dimensions namely tangibility, reliability, assurance, responsiveness and empathy (Carman, 1990).

After analysing the quality of school, the researcher will analyse the significant effect of school service quality towards student's achievement. The achievement of students were based on their Lower Secondary Assessment (PMR) results. This is a standardized assessment being conducted for every form three Malaysian student. Therefore the same students who sit for the PMR examination in the previous year will be the respondents of this research. Thus, there are two major findings we want to see in this research. The first would be the score of the school quality and the other one is the effect between quality and the students' academic achievement.

### **Research Methodology**

This research has been carried out in twelve schools in Hulu Selangor district which is located at the center part of Malaysia. The twelve schools are schools where the students have sit for the PMR examination in the previous year.

The respondents were chosen from the first class of the whole form four of each school to answer the service quality items. The good students were chosen as SERVQUAL instruments need the respondents who have higher cognitive thinking skill. This is true as some of the items require some calculation and the analysing skill.

### **Problem Statement**

Ensuring service quality of the educational profession in the 21<sup>st</sup> century is a challenging job. School consumers or customers are always looking for a good quality services as education is a very important agenda of the nation at present. Besides they always demand the level of education to be continuously upgraded.

In 1991, the former Malaysian prime minister, Tun Dr. Mahathir Mohamad has brought the idea of vision 2020 and later become a framework and the path to develop Malaysia as an industrial based county casted by our own mould. The former prime minister believed that education system need to be improved to produce such workers who are ready to fulfilled the need of the industrialised country.. In line with that, the Malaysian Education Ministry has outlined its mission as to develop the world quality class of education system in order to cast the whole potential of the individual student as to fulfil the Malaysian vision and aspiration (Kementerian Pendidikan Malaysia, 2001).

The vision of achieving the quality education requires a specific method of measurements that could identify the score of quality. The identification of quality score is very important to the service provider as to know their quality position. The quality position denoted as whether to maintain or improving the services. Besides, it also helps the service provider to prepare for any further the action that necessary to be taken (Mercu Tanda Pendidikan di Malaysia/Education Milestones in Malaysia 2001).

Therefore, a standard quality measurement is required to measure the quality then only a specific action can be taken. In this research we have identified a service quality instrument which is popularly known as SERVQUAL to measure the score of school service quality and also to identify the relationship between the school service quality and the students' academic achievement.

### **Research Objective**

The specific objectives of this research are to:

1. identify the SERVQUAL score for each service dimension and identify which dimension contributes the most to the low service quality in school.
2. identify the relative importance of each dimension and identify the reasons given by students for such relative importance.
3. identify the relationship between students' academic achievement and school service quality measured by using SERVQUAL instrument and non SERVQUAL instrument.

The general objectives are to:

1. measure the school service quality
2. identify the relationship between students' achievement and the school service quality.

## **Research Question**

Below are the basic research questions used in this research:

- Q1: How much is the SERVQUAL score and how is the position of each service dimension?
- Q2: How much is the weighted SERVQUAL score and how is the weighted position of each service dimension?
- Q3: What dimension contributes the most to the low school service quality?
- Q4: What is the position of each dimensional relative importance?
- Q5: What are the reasons given by students towards the most important and the least importance of service dimension?
- Q6: Is there a significant relationship between students' academic achievement with school service quality by using SERVQUAL instrument and non SERVQUAL instrument?

## **Research Hypothesis**

The development of the hypothesis in this research is based on the sixth research question which is to identify whether there is a significant relationship or not between the students' academic achievement and the school service quality by using a SERVQUAL instrument. The research hypothesis is:

- H<sub>01</sub>: There is no significant relationship between the students' academic achievement and the school service quality based on the five quality dimensions by using a SERVQUAL instrument and non SERVQUAL instrument.

## **Research Methodology**

### **Theoretical Framework**

The underpinning theoretical framework of this research is shown in the conceptual model of Figure 1 (Parasuraman et. Al., 1985). The difference between customers' perception and their expectation is being used to measure the score of service quality. By using the modified SERVQUAL instrument students were required to response to the 22 items twice (Parasuraman et. Al., 1988).

In this research the mean score of the perception is subtracted from the mean score of the expectation score for each item to acquire the mean for the service quality which is based on the five dimensions namely tangibility, reliability, responsiveness, assurance, and empathy. The higher the score the higher the service quality could be (Kurtz & Clow, 1999).

### The Conceptual model and Variables

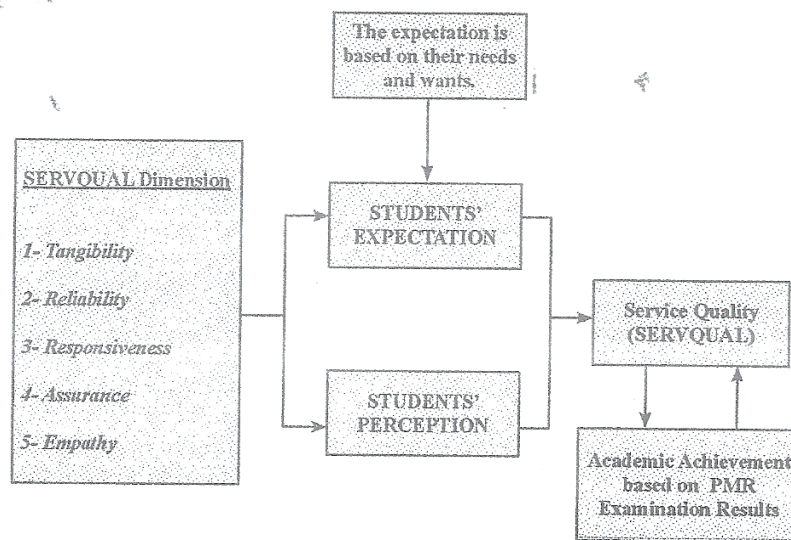


Figure 1

Service Quality (SERVQUAL) Conceptual Model

The focus has been given to the five service dimensions in order to measure the service quality. The importance of each dimension is determined by the customer's perception and expectation.

Therefore, the independent variables in this study would be the expectation of tangibility ( $E_1$ ), perception of tangibility ( $P_1$ ), expectation of reliability ( $E_2$ ), perception of reliability ( $P_2$ ), expectation of responsiveness ( $E_3$ ), perception of responsiveness ( $P_3$ ), expectation of assurance ( $E_4$ ), perception of assurance ( $P_4$ ), expectation of empathy ( $E_5$ ), perception of empathy ( $P_5$ ).

Meanwhile the dependent variable is the service quality of SERVQUAL (SQ). The service quality of the respective school is compared to the academic achievement (AA) which is based on the PMR examination. The academic achievement therefore becomes a dependent variable. The volatility of one expectation and perception can cause the service quality to change. Finally, this research will identify whether there is a significant relationship between the service quality and the student achievement. The elements of this research can be portrayed by the equation in Figure 2 below:

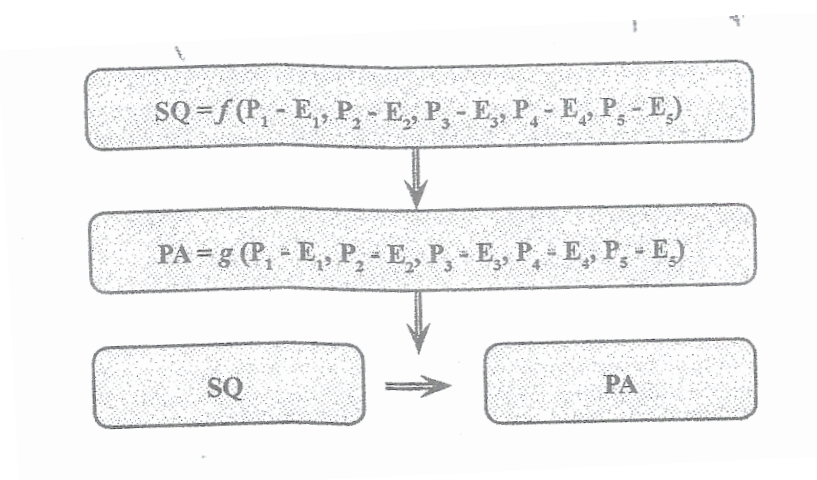


Figure 2

Linear Equation of Service Quality (SERVQUAL) ncapaian Akademik (PA)

## Data Analysis

### Research Question 1 to 5

Research question 1 to 5 do not need the hypothesis testing. The objective of research question 1 is to find the value of SERVQUAL score and how is the position of each dimension. The research question 2 is to get the value of weighted SERVQUAL score and the position of every weighted service dimension. The research question 3 is to identify which dimension that contributes the most to the low service quality in school. While research question 4 is to evaluate the relative importance of each service dimension and the research question 5 is to identify the reasons given by customers towards the most important dimension and the least important dimension as chosen by them.

## SERVQUAL Score

from the analysis, the mean and the standard deviation for every service dimension is shown in the Table 1 below. The results answer the research question 1, 2 and 3 (Tan & Foo, 1999).

Table 1  
Mean and Standard Deviation of Service Dimension

SERVQUAL Dimension	N	Mean/Weightage/ Relative Importance	Standard Deviation
Tangibility	336	27.98	11.88
Reliability	336	18.90	8.61
Responsiveness	336	16.80	6.49
Assurance	336	18.97	7.93
Empathy	336	17.22	7.58

From Table 2, the overall mean score of SERVQUAL is -1.35. the negative value denoted the service quality achievement in schools did not fulfil the student expectation. From the table, it shows that tangibility dimension has the biggest gap followed by empathy, responsiveness, assurance and the smallest gap is reliability dimension. The diagrammatic form of mean of every dimension is shown Figure 3.

Table 2  
SERVQUAL Score

SERVQUAL Dimension	Expectation (E)	Perception (P)	SERVQUAL Score (SQ = P - E)	Position
Tangibility	6.10	4.40	-1.70	1
Reliability	6.32	5.08	-1.24	5
Responsiveness	6.23	4.95	-1.28	3
Assurance	6.06	4.80	-1.26	4
Empathy	5.89	4.60	-1.29	2
Total	30.60	23.83	-6.77	
Mean	6.12	4.77	-1.35	

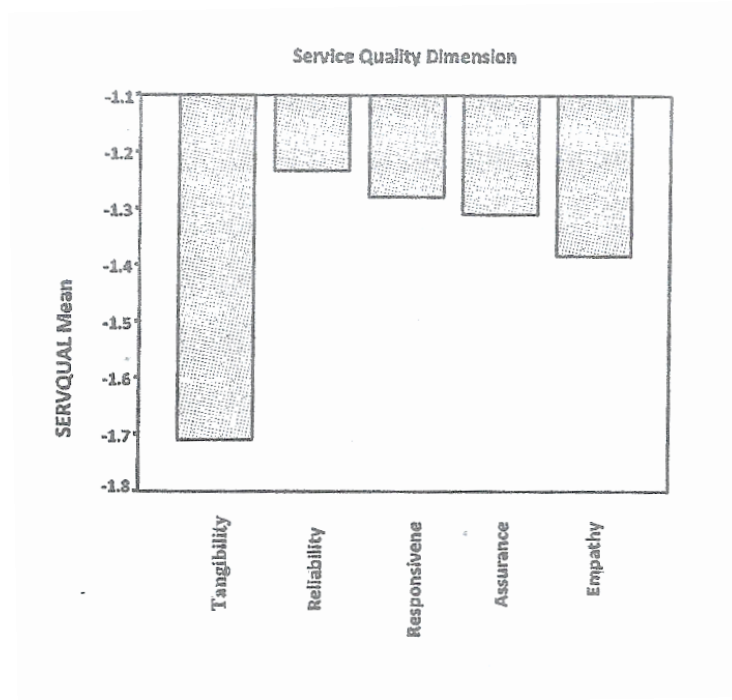


Figure 3

SERVQUAL mean as compared to Service Quality Dimension



The relative importance of each dimension did not taken into consideration in Table 2. In order to Foo, 1999).

### SERVQUAL Weighted Score

From table 3 the overall mean score of weighted SERVQUAL is -1.26. The mean score has increased shows that the service quality is increasing. However, the negative sign shows that the perception of service is very much lower than expected service.

Table 3  
Weighted SERVQUAL Score

SERVQUAL Dimension	SERVQUAL Score (SQ = P – E)	Weightage (%)	Weighted SERVQUAL Score	Position	
				Present	Previously
Tangibility	-1.70	27.98	-2.17	1	1
Reliability	-1.24	18.90	-1.06	3	5
Responsiveness	-1.28	16.80	-0.98	5	3
Assurance	-1.26	18.97	-1.08	2	4
Empathy	-1.29	17.22	-1.01	4	2
Total	-6.77	100.00	6.30		
Mean	-1.35	4.77	-1.26		

### Dimension that contributed to the low Service Quality in School

There are several dimensions that contribute to the low service quality in school. From the SERVQUAL quadrant, we can identify the weaker dimensions (Tan & Foo, 1999).

SERVQUAL Quadrant

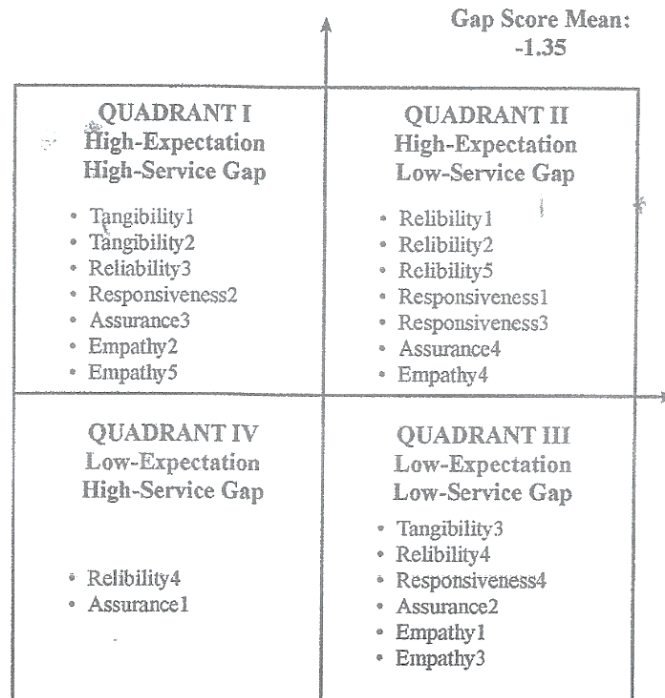


Figure 5

Expectation-Service Gap Grid

Based on the above figure, the Quadrant I (High Expectation, High Service Quality Gap) consists of two tangibility items, one reliability item, one responsiveness item, one assurance item and two empathy items.

In quadrant II, (High Expectation, Low Service Quality Gap) consists of three tangibility items, two responsiveness items, one assurance and one empathy item.

In the Quadrant III (Low Expectation, Low Service Quality Gap) consists of two tangibility items, one responsiveness, one assurance and two empathy items.\

Quadrant IV (Low Expectation, High Quality Service Gap) consists of one tangibility item and one assurance item.

The items appeared in Quadrant I which gap is very big shows that the customer expectation cannot be fulfilled by service of performance provided by school. The items in Quadrant IV require correction because the gap is also big.

On the other hand, items in Quadrant II and III are quite good compared to items in Quadrant I and II because their service quality gaps are low. It portrays that the service provided is as expected by the customers.

### Relative Importance of Service Dimension

In order to identify the relative importance of the service dimension, students were asked to divide a 100 marks into five service dimensions namely tangibility, reliability, responsiveness, assurance and empathy (Tan & Foo,1999). From the research finding, it shows that tangibility dimension has the highest mean score of 27.98 which indicates it is the most important dimension in the secondary school. Meanwhile the least importance dimension according to students is responsiveness.

Table 4  
Relative Importance of Service Dimensions

SERVQUAL Dimension	N	Mean	Standard Deviation	Position
Tangibility	336	27.98	11.88	1
Reliability	336	18.90	8.61	3
Responsiveness	336	16.80	6.49	5
Assurance	336	18.97	7.93	2
Empathy	336	17.22	7.58	4

### **Reasons for the Most and the Least Important Dimension.**

Based on question B6 and B7 of the SERVQUAL instrument, among the reasons given by students of why certain dimensions is important or not is that; all the physical equipment is important as a tool to smooth run the learning process, it also helps to upgrade the school performance, the physical equipment could attract the students to be more committed with school and students can learn in the easy, comfortable and effective environment.

Meanwhile, based on the respondent opinion, the responsiveness dimension does not really important in school as they could not really need the prompt service from the school staffs. The education nature of service does not require fast service as compared to other services. According to Berry & Parasuraman (1991), among many previous researches, reliability is the most important dimension to the customers but from the school context this dimension is not considered the most important dimension.

The tangibility dimension get the highest mean score (27.98) and also the highest standard deviation. The highest standard deviation shows the evaluation made by respondents were scattered.

### **Hypothesis Testing**

From six research questions, only research question 6 requires hypothesis testing.

#### **Research Hypothesis 1**

null hypothesis 1 ( $H_{01}$ ) is developed to answer the research question 6, i.e there is no significant relationship between student's academic achievement and service quality by using SERVQUAL as well as non SERVQUAL instrument. In order to answer this question and to test the hypothesis, the correlation method has been utilized to identify the relationship between the two variables.

The Pearson correlation value is -0.061 shows that there is a weak relationship between two variables. However, the significant value is larger than 0.05, which is 0.264, so it is said that this relationship is not significant and there is no linear correlation. Therefore, there is no significant relationship between service quality by using SERVQUAL instrument of tangibility dimension with the academic achievement.

Table 5  
Correlation between SERVQUAL (Tangibility) and the  
Academic Achievement

		Academic Achievement	SERVQUAL (Tangibility)
Academic Achievement	Pearson Correlation	1	-.061
	Sig. (2-tail)	.	.264
	N	336	336
SERVQUAL (Tangibility)	Pearson Correlation	-.061	□
	Sig. (2-tail)	.264	.
	N	336	336

The correlation value of -0.097 shows that there is a weak and negative relationship between the two variables. However, as the significant value 0.075 is more than 0.05, it indicates that the relationship is not significant and there is also no linear relationship. Therefore, there is no significant relationship between service quality of reliability dimension by using SERVQUAL instrument and the academic achievement.

Table 6  
Correlation between SERVQUAL (Reliability) and the  
Academic Achievement

		Academic Achievement	SERVQUAL (Reliability)
Academic Achievement	Pearson Correlation	1	-.097
	Sig. (2-tail)	.	.075
	N	336	336
SERVQUAL (Reliability)	Pearson Correlation	-.097	1
	Sig. (2-tail)	.075	.
	N	336	336

The correlation value -0.104 shows that there is weak and negative relationship between both variables. However, as the significant score is more than 0.05 which is 0.056, the relationship is not significant and there is no linear relationship. Therefore, there is no significant relationship between service quality by using SERVQUAL instrument of responsiveness and the academic is achievement.

		Academic Achievement	SERVQUAL (Responsiveness)
Academic Achievement	Pearson Correlation	1	-.104
	Sig. (2-tail)	.	.056
	N	336	336
SERVQUAL (Responsiveness)	Pearson Correlation	-.104	□
	Sig. (2-tail)	.056	.
	N	336	336

The correlation value of -0.097 shows that there is a weak and negative relationship between both variables. However, as the significant score is bigger than 0.05, which is 0.077 so the relationship is not significant and there is no linear relationship. Therefore, there is no significant relationship between service quality by using SERVQUAL instrument of assurance dimension and the academic achievement.

Table 8  
Correlation between SERVQUAL (Assurance) and the  
Academic Achievement

		Academic Achievement	SERVQUAL (Assurance)
Academic Achievement	Pearson Correlation	1	-.097
	Sig. (2-tail)	.	.077
	N	336	336
SERVQUAL (Assurance)	Pearson Correlation	-.097	□
	Sig. (2-tail)	.077	.
	N	336	336

the value of correlation -0.062 shows that there is a weak and negative relationship between both variables. However, as the significant score is bigger than 0.05, which is 0.261, so, the relationship is not significant and there is no linear relationship. Therefore, there is no significant relationship between service quality by using SERVQUAL instrument of empathy dimension and academic achievement.

Table 9  
Correlation between SERVQUAL (Empathy) and the  
Academic Achievement

		Academic Achievement	SERVQUAL (Empathy)
Academic Achievement	Pearson Correlation	1	-.062
	Sig. (2-tail)	.	.261
	N	336	336
SERVQUAL (Empathy)	Pearson Correlation	-.062	□
	Sig. (2-tail)	.261	.
	N	336	336

The correlation analysis shows that there is weak correlation between service quality by using non SERVQUAL instrument with the students' academic performance in which the correlation value is -0.035. The negative sign shows the relationship that exist between both variables is a negative relationship. However, the significant score is bigger than 0.05 which is 0.525. Therefore, the relationship is not significant and there is no linear relationship. Thus, the null hypothesis which says that there is no significant relationship between the service quality by using SERVQUAL instrument as well as non SERVQUAL instrument and the academic achievement is failed to be rejected. So the the null hypothesis is accepted.

Table 10  
Correlation between non SERVQUAL instrument and Academic Achievement

		Academic Achievement	Non SERVQUAL instrument
Academic Achievement	Pearson Correlation	1	-.035
	Sig. (2-tail)	.	.525
	N	336	336
Non SERVQUAL instrument	Pearson Correlation	-.035	□
	Sig. (2-tail)	.525	.
	N	336	336

## Conclusion

The results indicate that service quality in school need to be upgraded. The mean score of service gap of -1.35 as compared to the mean score of quality expectation of 6.12 portrayed that the score of quality service provided by Hulu Selangor district schools in very much lower than what is expected by all students.



The finding also shows that academic achievement does not have the significant relationship with the service quality except that there is loose relationship between academic achievement and service quality in the dimensions like expectation of tangibility, reliability, responsiveness and perception of empathy. Why the service quality does not help to improve students' academic achievement is still a big question mark. Nevertheless, a few assumptions can be made for this finding.

Firstly, the researcher assume that it is true that both aspects were not correlate as students who are high achievers do not depend on the school service quality. Their achievement might be very much depend on their expectation towards the excellent results, their own attitude and motivation toward their academic excellence. If a school has provided a high score of service quality but students do not have the spirit and positive attitude towards learning most probably they do not excel.

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