Student satisfaction with the performance of Surabaya school buses

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Abstract. School transportation facilities in the city of Surabaya are increasingly being upgraded to serve the needs of education. In 2019, there have been 7 School Bus units operating in several points in South, East, North and West Surabaya. The addition of this mode is intended to fulfill and facilitate the journey of the citizens of Surabaya to school; in addition, to reduce the number of students using private vehicles to school. However, to find out the interests of school bus users, it is necessary to know the performance of school bus services and passenger satisfaction. This study aims to measure the performance and service of school buses, as well as the level of student satisfaction. Data collection in this study uses several methods, namely questionnaire survey, observations and interviews. The data were analyzed using two methods, namely descriptive analysis with standard public service calculations and the Importance Performance Analysis method. Based on the results of the analysis, the performance of the Surabaya School Bus was categorized as "Good". At the level of satisfaction, there are 5 attributes considered important, 7 attributes have good performance, 1 attribute is not prioritized, and 3 attributes have good performance but are not considered important.

Keywords: performance, satisfaction, Importance Performance Analysis

1. Introduction
Transportation problems are still a trending issue in several big cities like Surabaya. The reason is that the increasing population growth will affect the demand for transportation modes as a means of mobility, so that it will also affect the density of motorized vehicles. The increasing number of motorized vehicles in urban areas has the potential to cause various traffic problems such as accidents and congestion on various roads. The Surabaya City Government continues to improve services to ensure the availability of safe and comfortable transportation for the community to reduce these problems. Providing public transportation services can be a solution to unravel congestion and reduce accident rates. However, the provision of public transportation services will not have a significant impact without being supported by the optimization of community use. Thus, public interest in the use of public transportation must be encouraged. The large number of modes of transportation needs of school children in various cities such as in Surabaya has caused an increase in the density of motorized vehicles at certain times. Therefore, it needs government efforts to provide public transportation services specifically for school children such as school buses. However, the quality of school bus service quality must always be improved to provide facilities for students to use school buses as one of the expectations of students who are not old enough to use motorbikes. The implementation of the free school bus transportation service must pay attention to several indicators based on Minister of Transportation Regulation No. 29 of 2015 consisting of Security, Safety, Comfort, Equality, and Regularity. Passenger satisfaction is one important component in transportation services, so that the school bus service organized by the government can run according...
to the expectations and needs of the community.

Actually, public transportation services in the city of Surabaya have increased. In addition to the city bus which has been operating for a long time, the Surabaya city government has added public transportation facilities in the form of 20 units of Suroboyo Bus and 10 units of school bus. Improving this transportation service can gradually unravel congestion and reduce the number of accidents in the city of Surabaya. However, it must be balanced with public interest in the use of public transportation. The rise and pull of land use, especially in educational facilities, is one of the activities that often causes traffic jams. Based on data released by the Surabaya City Transportation Agency in 2016, the use of private vehicles as a mode of transportation to schools in the city of Surabaya is 88%, while 12% of students uses public transportation modes.

Users of private transportation mode go to school for junior high school students more than public transportation. However, the results of his research revealed the willingness of respondents to use school buses as a mode of transportation at Wijaya Kusuma road area if school buses were provided is as much as 56.9% of 4,195 students [1]. These data can also be strengthened by the results of research which state that 71% of the respondents surveyed at Jl. Governor Suryo and Jl. Prof. Dr. Moestopo is also willing to use the school buses as a mode of transportation to school, and some of those who use the school bus are satisfied with the service [2]. That is, there are still many students who are willing to use the school bus if it is available on the route they are traveling on.

The delivery of free school bus services in Surabaya by the city government is one form of good governance because school transportation is a very important community need that must be met. However, in terms of operation and management of the school bus, the government as the manager must pay attention to the quality of service and passenger satisfaction because the choice of transportation mode can be known from how good the quality of the service is, to the increasing user satisfaction.

2. Study Area Data

School buses in Europe are seen as one of the safest modes of transportation because they are specifically designed to protect students from road hazards. Statistics show that students who travel by private vehicles are seven times more likely to be involved in a traffic accident than those who use bus transportation [3]. In addition, the National Highway Traffic Safety Administration (NHTSA) compares the number of deaths of children aged five to eight years in the United States caused by private cars and school buses, and 87 times school buses are safer than private cars. In Greece, school bus transportation is divided into three categories, namely private school buses that serve elementary school students (door-to-door service), private school buses that serve middle school students (pickup as parents wish), and public school buses that serve students primary and secondary schools (stopping points are determined by schools and in collaboration with transport providers) [4]. There are special rules that regulate and supervise the school bus transportation system such as the maximum speed, the provision of seat belts, the presence of officers on the bus, and others [5].

Unlike the public school transportation system, that of the private school is more organized. It is proven that school students in the private sectors are served inter-bridge transportation from home, while students in public schools must go to certain places or stops to wait for the school bus pickup. In addition, all private primary schools provide the services of school bus officers who are responsible for student safety. This service does not exist in public primary schools [6].

There are five dimensions of quality of public transport services namely, Tangibility, Reliability, Responsiveness, Assurance, Empathy [7].

3. Methodology

This research data collection method uses a questionnaire survey, observation and interview. The data collected from the results of the questionnaire survey will be analyzed using two methods. First, the performance of school bus services will be analyzed using descriptive analysis with standard public service calculations which include load factor, speed, headway, travel time, service time, frequency,
number of vehicles operating, waiting time, and end of trip. Second, Surabaya School Bus Passenger satisfaction will be analyzed using the Importance Performance Analysis (IPA) Technique method to determine the effect between passenger satisfaction and expectations of the school bus. This IPA method has two stages of analysis, i.e., looking for conformity prices and Cartesian charts.

3.1 Performance Analysis of School Bus Services
School bus service performance was analyzed using descriptive analysis with Public Transport Service Standard parameters. School bus service performance data obtained from observations and interviews are first analyzed by load factor, travel time, travel speed, and service frequency. From the load factor analysis, travel time, travel speed, and service frequency, it can be seen that the analysis value is lower, equal, or higher than the standard indicators of public transport services that have been determined by the Director General of Land Transportation in table 1.

| Number | Parameter | Unit             | Assessment Standards |
|--------|-----------|------------------|----------------------|
| 1      | Load factor busy time | %                | >100   | 80 – 100 | <80   |
| 2      | Load factor busy outside Rush Hour | %                | >100   | 70 – 100 | <70  |
| 3      | Speed Traveling | KM / hour         | <5      | 5 – 10   | >10   |
| 4      | Headway       | Minute            | >15     | 10 -15   | <10   |
| 5      | Travel Time   | Minute / km       | >12     | 6 – 12   | <6    |
| 6      | Service Time  | Hour              | <13     | 13 – 15  | >15   |
| 7      | Frequency     | vehicle / hour    | <4      | 4 -6     | >6    |
| 8      | Number of Vehicles | %                | <82     | 82 – 100 | 100   |
| 9      | Waiting Time  | Minute            | >30     | 20-30    | <20   |
| 10     | Start and end of trip |                 | 05.00-18.00 | 05.00-19.00 | 05.00-20.00 |

Source: Director General of Land Transportation 2002

All assessments are added up and the quality of service is assessed using table 2 below:

| Criteria          | Total Value |
|-------------------|-------------|
| Good              | 18 – 24     |
| Average           | 12 – 17.9   |
| Bad               | < 12        |

Source: Director General of Land Transportation 2002

3.1.1 Load Factor
Load factor is the ratio between the number of passengers and the capacity of public transport vehicles with the following formula:

\[
LF_{\text{max}} = \frac{\text{Number of passengers transported}}{\text{Passenger seating capacity}} \times 100 \% (1)
\]

The load factor calculation is done by calculating the capacity of passengers transported in each segment from the starting point of departure to the end. The calculation of each segment is carried out to anticipate changes in the number of passengers up and down at each stop. Then, an average load factor is calculated to determine the load factor from the starting point to the end.
3.1.2 Travel speed
Urban public transport travel speed is the ratio of operating distance and the travel time required by the transport to carry out its service operations. The equations used in measuring travel speed are:

\[ V = \frac{S}{T} \]  

Where:
\( V \) = Travel speed of public transport (km / hour)
\( S \) = Distance of public transport routes (km)
\( T \) = Travel time for public transport (minutes)

3.1.3 Travel time
Travel time is used to measure the travel time of a public transportation per kilometer traveled. Travel time can be calculated using the equation:

\[ \text{Travel Time} = \frac{\text{Travel Length}}{\text{Route Length}} \]  

Frequency is the number of vehicles operating within 1 hour. Frequency calculation uses the following formula:

\[ f = \frac{N}{60} \]  

\( f \) = frequency (number of vehicles per minute)
\( N \) = number of vehicles (unit)

3.2 Analysis of passenger satisfaction with school bus services
Satisfaction questionnaire is designed based on the satisfaction dimension which consists of reliability, responsiveness, assurance, empathy, and tangibility. The survey in this study used the revealed preference method. This method is a real expression based on the experience that has been felt by respondents and passenger expectations. This satisfaction analysis is to find out the level of satisfaction of performance, the level of importance or expectations of passengers, and the level of correspondence between the level of satisfaction and importance. Satisfaction and importance are analyzed using the Importance Performance Analysis (IPA), where there are two stages in working on this method, namely looking for conformity prices and Cartesian charts. The formula used is as described below.

3.2.1 Looking for Price Conformity (with IPA analysis)

\[ T_{ki} = \frac{X_i}{Y_i} \times 100\% \]  

Where:
\( T_{ki} \) = Level of fitness of respondents.
\( X_i \) = School bus performance assessment scores
\( Y_i \) = Scores for the importance of school bus users

The horizontal axis (X) will be filled by the performance level score, while the vertical axis (Y) will be filled by the importance level score. In simplifying the formula, each attribute that affects customer satisfaction can be determined by the formula:
\[
\bar{X}_i = \frac{\sum X_i}{n} \\
\bar{Y}_i = \frac{\sum Y_i}{n}
\]

(6) (7)

Where:
\( \bar{X}_i \) = The average score of each variable \( i \) at the level of performance.
\( \bar{Y}_i \) = The average score of each variable \( i \) at the level of importance.
\( \sum X_i \) = The total score of each variable \( i \) at the level of implementation of the respondents
\( \sum Y_i \) = The total score of each variable \( i \) at the level of importance of all respondents
\( N \) = Total Respondents

3.2.2. Cartesian Diagram

\[
\bar{X} = \frac{\sum_{i=1}^{K} X_i}{K} \\
\bar{Y} = \frac{\sum_{i=1}^{K} Y_i}{K}
\]

(8) (9)

Where:
\( \bar{X} \) = Average of the total weighted implementation level.
\( \bar{Y} \) = Average of the total weighted importance level.
\( K \) = Number of variables specified

4. Results and Discussion

4.1 School Bus Service Performance Analysis
The seven school buses that operate serving students at the four departure points have a capacity of 35 passengers with 25 seats, 10 stands. This load factor analysis is to measure the performance of school bus services based on the 2002 Director General of Land Transportation provision regarding public transport service standard indicators [8]. Load factor calculation is carried out by analyzing seven school buses at four points. This calculation is based on the results of counting each segment on each route to find out the number of load factors for each segment because there is a change in the amount of ups and downs from the start point of departure to the end. Therefore, to find out the number of load factors on each route, the average load factor of each segment is calculated. The results of the load factor analysis of seven school buses produce the following:

| Number | Bus Code | Route | Load Factor Recap |
|--------|----------|-------|-------------------|
|        |          |       | Depart | Return |
| 1      | Bus 02   | Transportation Department - SMKN 5 | 0.95   | 0.82   |
| 2      | Bus 10   | Transportation Department - SMPN 1 | 0.87   | 0.81   |
| 3      | Bus 03   | Rungkut sub district office - SMPN 1 | 0.69   | 0.56   |
| 4      | Bus 07   | Rungkut sub district office - SMPN 1 | 0.79   | 0.50   |
| 5      | Bus 05   | Tandes sub district office - SMPN 1 | 0.80   | 0.72   |
| 6      | Bus 09   | Tandes sub district office - SMPN 1 | 0.92   | 0.84   |
| 7      | Bus 08   | Romokalisari Flat House - Barata Jaya | 0.64   | 0.25   |

Average 0.81 0.64
Based on the standard indicators of public transport services established by the Director General of Land Transportation in 2002 which explains that the assessment standard is said to be "insufficient" if the load factor at peak hours and outside rush hour is above 100%, the assessment standard is said to be "medium" if the load factor at rush hour between 80% - 100% and outside rush hour between 80% - 100%, and the standard assessment is said to be "good" if the load factor at rush hour is below 80% and outside rush hour is below 70%. By looking at the details of the recapitulation of the load factor analysis above, it can be concluded that there is a load factor that is in the "good" category, namely Bus 03 and 07 of the Kec. Rungkut - SMPN 1, Bus 05 route Kec. Tandes - SMPN 1, and Bus 08 route Rusun Romokalisari - SDN Baratajaya. Meanwhile, Bus 02 and 10 of the Dishub Office route - SMKN 5, Bus 10 of the Dishub Office route - SMPN 1, and Bus 09 Office route Kec. Tandes - SMPN 1 is in the "medium" category because the value of the load factor reaches above 80%. The average load factor of all school buses is in the category of "moderate" with a load factor of 81% at the hours of departure, and the category of "good" at the hours of departure with a load factor of 64%.

4.2 Travel Speed Analysis
From secondary data obtained from the Surabaya City Transportation Department school bus, it is known that bus travel speed is as in table 4 below:

| Number | Route                        | Bus Number | Distance (Km) | Travel Time (Hours) | Speed (Km / hr) |
|--------|------------------------------|------------|---------------|--------------------|-----------------|
| 1      | Transportation Department    | 02         | 18.65         | 0.633              | 29              |
| 2      | Transportation Department    | 10         | 21.55         | 0.65               | 33              |
| 3      | Rungkut SubDistrict Office   | 03         | 19.3          | 0.76               | 25              |
| 4      | Rungkut SubDistrict Office   | 07         | 19.5          | 0.67               | 29              |
| 5      | Tandes Sub-District Office   | 05         | 16            | 0.57               | 28              |
| 6      | Tandes Sub-District Office   | 09         | 14.9          | 0.48               | 31              |
| 7      | Romokalisari Flat House      | 08         | 63.55         | 1.57               | 40              |
|        | **Average**                 |            | **63.55**     | **1.57**           | **40**          |

The analysis results from the survey data above show the average speed of the bus is 31 km / hour, and from the table, it can be seen that the highest speed occurs in Bus no. 08 route from Romokalisari Flat to SDN Baratajaya with an average speed of 40 km / hour. The departure route of the Romokalisari Flat starting point is the longest route, the length of which is 63.55 km. Meanwhile, the lowest speed is 25 km / h on Bus no. 03 route from Rungkut District to SMAN 1 Surabaya with a route length of 19.3 km.

4.3 Headway Analysis
Headway time is the departure interval between one bus and the next bus which is calculated in time units at a certain point on each route. Headway is one thing that affects the service level. Headway arrangement results in passenger transportation. A headway that is too low will result in a capacity that exceeds demand because the bus arrival rate will be greater than the rate of the arrival of passengers. Meanwhile, the headway that is too high can result in too long waiting times for passengers. However, in the Surabaya School Bus study, there was no Headway because all buses depart at the same time at 05.30 WIB, except Romokalisari buses depart at 05.00 WIB.

4.4 Travel Time
Travel time from the initial segment to the final segment, the time required to travel including the time of lowering and raising passenger units used minutes / km. Therefore, the amount of travel time is as
follows:

| Number | Bus Code | Route | Recap of Average Travel Time |
|--------|----------|-------|------------------------------|
|        |          |       | Depart | Return |
| 1      | Bus 02   | Transportation Department - SMKN 5 | 2.42  | 2.08  |
| 2      | Bus 10   | Transportation Department - SMPN 1 | 2.62  | 2.32  |
| 3      | Bus 03   | Rungkut SubDistrict Office - SMPN 1 | 2.68  | 2.14  |
| 4      | Bus 07   | Rungkut SubDistrict Office - SMPN 1 | 2.51  | 1.93  |
| 5      | Bus 05   | Tandes Sub-District Office - SMPN 1 | 2.76  | 2.85  |
| 6      | Bus 09   | Tandes Sub-District Office - SMPN 1 | 2.41  | 2.21  |
| 7      | Bus 08   | Romokalisari Flat House – SDN Baratajaya | 2.09  | 1.80  |
|        |          | Average | 2.50 | 2.19  |

The results of the analysis of the travel time from the table above, the average travel time is of 2.50 minutes / km with the fastest time value seen on bus No. 08 Romokalisari flat departure route with a route length of 63.55 km and a trip length of 1 hour 57 minutes, so that it is obtained travel time of 2.09 minutes / km, while the lowest travel time can be seen on bus no.05 with the original departure route from Tandes District with a route length of 15.99 km, 34 minutes of travel time so that the bus travel time is 2.76. On the return bus, the average travel time is 2.19 minutes / km with the fastest time value seen on the bus no. 08 Romokalisari route, 42 minutes travel time and 1.8 minutes / km travel time, with a 25 km return route length. Meanwhile, the lowest bus on the return journey can be seen on bus No. 05 with the initial departure route from Tandes District with a travel time of 24 minutes, a route length of 12.81 km and a travel time of 2.85 minutes. From table 5, it can be seen as a whole that the average travel time when departing is greater than the return trip time.

4.5 Service time
Long school bus service times in operation per day indicate a poor performance. The standard commonly used for branch and local routes is not less than 15 hours per day for good categories and for categories less than 13 hours. Surabaya school bus services start at 05:30 until 16:30 so that the school bus service time is 12 hours.

4.6 Frequency of service
Frequency is the number of vehicles operating within 1 hour.

| Number | Route | Bus Number | Number of Buses | Minute | Frequency |
|--------|-------|------------|----------------|--------|-----------|
| 1      | Menanggal | 02 and 10 | 2           | 60     | 0.03      |
| 2      | Kecamatan Rungkut Kecamatan Tandes Rusun Romokalisari | 03 and 07 | 2 | 60 | 0.03 |
| 3      | 05 and 09 | 2 | 60 | 0.03 |
| 4      | 08 | 1 | 60 | 0.02 |
|        | Average | 0.03 |

Based on the table above, the average frequency count results of the number of schools that pass every
hour are 0.03.

4.7 Analysis of Passenger Satisfaction with Surabaya Free School Bus Services

Measurement of satisfaction and service quality are used to study the perceptions of each customer towards the desired service quality, find out the needs and expectations, improve service quality in accordance with expectations, and improve service quality [9].

Analysis of passenger satisfaction with the services of Surabaya school buses refers to five dimensions of service quality namely, reliability, responsiveness, assurance, empathy and tangibility [10]. The survey results based on the five dimensions are analyzed using Importance Performance Analysis (IPA) and illustrated with Cartesian diagrams to measure the level of satisfaction of someone on the performance of the school buses by comparing the level of expectations with the performance of the school bus manager.

Previously, it was known the level of conformity or the results of the comparison of satisfaction and expectation scores to find out whether the performance of the Surabaya school buses was in line with passenger expectations or not. In this level of conformity analysis, the letter Y represents expectations and the letter X represents satisfaction. Following are the results of the suitability calculation.

| Criteria                                         | Satisfaction (X) | Hope (Y) | Xi   | Yi   | Tki   |
|--------------------------------------------------|------------------|----------|------|------|-------|
| Punctuality                                      | 4,25             | 4,44     | 901  | 941  | 96%   |
| Suitability of Operating Hours with Needs        | 4,02             | 4,52     | 853  | 959  | 89%   |
| Distance from home to bus stop                   | 4,05             | 4,45     | 858  | 944  | 91%   |
| Travel time from home to bus stop                | 3,94             | 4,39     | 835  | 930  | 90%   |
| Driver behavior                                  | 4,17             | 4,08     | 883  | 866  | 102%  |
| Travel time to school                            | 4,15             | 4,47     | 880  | 947  | 93%   |
| Passenger Comfort                                | 3,88             | 4,46     | 822  | 946  | 87%   |
| Ease of getting a seat                           | 3,72             | 4,47     | 788  | 947  | 83%   |
| Waiting time for the next bus                    | 4,09             | 4,32     | 868  | 916  | 95%   |
| Order                                            | 4,24             | 4,56     | 898  | 967  | 93%   |
| Driver's courtesy / friendliness                 | 4,29             | 4,26     | 909  | 904  | 101%  |
| Security                                         | 4,10             | 4,47     | 870  | 947  | 92%   |
| Driver alertness                                 | 3,84             | 3,91     | 814  | 829  | 98%   |
| Cleanliness                                      | 4,21             | 4,46     | 892  | 945  | 94%   |
| Bench condition                                  | 3,78             | 4,58     | 802  | 970  | 83%   |
| First Aid Kit                                    | 3,42             | 4,64     | 726  | 984  | 74%   |
| Safety equipment                                 | 3,81             | 4,63     | 808  | 982  | 82%   |

| Total                                             | 67.96            | 75.11    | 14.407 | 15.924 | 90%   |

| Average                                          | 4.00             | 4.42     | 847   | 937   | 90%   |

Source: Calculation results

Based on the results of the calculation of the suitability level above, there are 10 criteria that have a score of expectation or level of importance higher than the satisfaction of school bus performance, that is, P3K completeness with an expectation score of 4.64% and a respondents’ suitability level of 74%, completeness of safety equipment 4.63 % and the respondents’ suitability level of 82%, the next bus waiting time is 4.32% and the respondents’ suitability level is 95%, the distance of the house to the bus stop is 4.45% and the respondents’ conformance level is 91%, the driver's readiness is 3.91% and the respondents’ compliance level is 99%, 4.56% Order and 93% respondents' conformity level, 4.44% Accuracy and 96% respondents' correspondence level, Operating Hours Compliance with Needs
4.52%, and 89% respondents' conformity level, Travel time to school 4.47% and the suitability level of respondents 93%, Security 4.47% and the level of conformity of respondents 92%, Cleanliness 4.46% and the suitability level of respondents 94%. Travel time from home to bus stop is 4.39% and respondent's compliance level is 90%, Passenger Comfort is 4.46% and respondent's compliance level is 87%, Accessibility is 4.47% and respondent's compliance level is 83%, Cleanliness is 4.46% and the level of conformity of respondents 94%, Bench conditions 4.58% and the level of conformity of respondents 83%. Meanwhile, there are 2 criteria that have a higher performance satisfaction score than expectations, namely, driver behavior 4.17% and the respondents' suitability level 102%, driver's courtesy / friendliness 4.29% and the respondents’ suitability level 101%. However, overall, the average expectation value is higher than the performance with a satisfaction score of 4.00% compared to 4.42% expectation and the respondents' conformity level 90%. However, the percentage of suitability between the performance and passengers of the Surabaya school buses can be said to be good because it is approaching 100% with a gap of 10%.

Then, the level of passenger satisfaction with the performance of Surabaya school buses can be seen in figure 1. The following are the results of the Importance Performance Analysis (IPA) analysis of the level of passenger satisfaction with school bus services using the Cartesian diagram in the SPSS 23.0 Program. In the Cartesian diagram, the quadrant boundary is on the X axis = 4.00 and the Y axis = 4.42, so the following results are obtained:

**Figure 1. Quadrant Analysis of School Bus Passengers with SPSS 23.0**

Based on the Cartesian diagram above, it can be seen that there are 5 variables in quadrant A. Thus, these variables are among the top priorities that must be considered by Surabaya school bus managers because they have high importance. The 5 variables are passenger comfort, ease of getting a seat, bench condition, first aid kit, safety equipment. On the other hand, awareness of B, there are 7 variables namely, timeliness, conformity of operating hours with needs, distance of the house to the bus stop, travel time to school, order, safety, and cleanliness. Quadrant B can be interpreted that all the variables in the quadrant have a good performance, and the respondents are satisfied. Therefore, it must be maintained because it matches the expectations or interests of Surabaya School Bus passengers. In addition, there are 2 variables included in quadrant C and 3 variables in quadrant D. Two variables included in quadrant C are travel time from home to bus stop and driver alertness. Driver alacrity
variable is not prioritized by the respondents. However, the travel time from home to this stop variable is in quadrant C which is adjacent to quadrant A with an expected score of 4.39%, higher than the satisfaction value of 3.94%. Furthermore, the variables included in quadrant D are driver behavior, waiting time for the next bus, and driver courtesy / friendliness. These variables in Quadrant D have a good level of satisfaction or performance, but are considered not important by the respondents.

5. Conclusions
Research on Student Satisfaction Analysis of School Bus Performance produces two analyzes and discussions on School Bus performance and passenger satisfaction with school buses. The results of this study can be concluded that there are 2 categories of load factors on Surabaya School Buses if referring to the standard indicators of public transport services established by the Director General of Land Transportation in 2002. The "good" category is on Bus 03 and 07 of Kec. Rungkut - SMPN 1, Bus 05 route of Kec. Tandes - SMPN 1, and Bus 08 route of Bus 03 and 10 of the Dishub Office route - SMKN 5, Bus 10 of the Dishub Office route - SMPN 1, and Bus 09 route of Kec. Tandes - SMPN 1 are in the "medium" category, however, the average load factor of all school buses is in the "medium" category. Surabaya school bus speed reaches > 10 km / hour, the number of vehicles operating is of 70%, and waiting time is <20 minutes, so that it belongs to the category of "good". Meanwhile, the average service time, vehicle frequency, and the beginning of the trip are included in the category of "less". There are 5 attributes of satisfaction that are considered important by the respondents to be improved, namely: passenger comfort, ease of getting a seat, bench conditions, first aid kit, and safety equipment completeness. Seven (7) attributes that are considered to have good performances and are maintained, namely: timeliness, operational suitability with needs, distance from home to bus stops, travel time to school, order, safety, and cleanliness. The driver's alertness attribute is not prioritized by the respondents. Attribute travel time from home to the bus stop is normal because the average is close and not too far from the house. Finally, the attributes of the driver's behavior, the next bus waiting time, and the driver's courtesy / friendliness have a good level of satisfaction or performance, but are not considered important by the respondents.

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