



Measuring the Level of Efficiency of Pre-University Educational Services in Port Said Governorate

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ABSTRACT

The field study revealed that students use various means of transportation to reach their schools. The most commonly used mode is the microbus, followed by private cars, walking, and finally, school buses. The time taken to reach school varies according to the type of transportation used, with the most frequent travel time ranging from 10 to less than 20 minutes, followed by 20 minutes or more, and lastly, less than 10 minutes. Regarding the cost of transportation, most students incur no expenses as they either live close to their schools or use their parents' private cars, which accounts for the largest proportion. The second most common cost is less than 10 EGP, used by students traveling by microbus. The third and fourth categories range between 10 to less than 20 EGP, and 20 EGP or more, incurred by students using school buses or subscription services. The distance traveled varies depending on the educational level and the school, with students who walk or use private cars covering distances of 500 to 1000 meters, especially those in elementary school. For preparatory and secondary schools, the distance is often more than 1000 meters. The field study also assessed students' opinions on the educational process, particularly class schedules. More than half of the sample indicated that their schedules were somewhat crowded. As for academic performance, less than three-quarters of the students believed their academic achievement was satisfactory. Some students resort to private tutoring due to the difficulty of exams, the desire to obtain higher grades, a lack of understanding in school, and overcrowded classrooms. Additionally, some students face noise disturbances both inside and outside the school, attributed to traffic, nearby markets, and street vendors using loudspeakers. Other sources of pollution include noise, air, and visual pollution, with noise pollution stemming from street vendors, air pollution from nearby factories, and visual pollution caused by vendors setting up stalls in front of schools.

Introduction

Educational services are among the most important public services that must be provided to the population of any community. The education sector plays a crucial role in shaping the future

and achieving comprehensive development, as it is directly linked to the political, economic, social, and cultural realities. Therefore, governments strive to provide educational institutions at all levels (kindergartens, schools, universities) to accelerate their progress and

prosperity. The level of development and civilization of societies is measured not only by the quantity of services available but also by the quality of these services and their compliance with international standards. Numerous studies have shown a positive correlation between educational levels and proximity to educational services (Rwandzi, 2013, p. 215). The level of education is one of the most significant indicators of human development. As educational levels rise, so do productivity, income, and demand for education, ultimately contributing to political and economic development as a means of generating wealth and energy (Shalabi, 2005, p. 396).

1. Study Area

Port Said Governorate is one of the Suez Canal governorates, located in the northeastern part of the Arab Republic of Egypt at the entrance of the canal. Geographically, Port Said is situated between latitudes 30°53'03" N and 31°21'30" N and longitudes 32°03'05" E and 32°33'43" E. It is bordered to the north by the Mediterranean Sea, to the south by Ismailia Governorate, to the east by North Sinai Governorate, and to the west by Dakahlia Governorate. Additionally, it is bordered to the southwest by Sharqia Governorate and to the northwest by Damietta Governorate. Port Said Governorate covers an area of 1,346 km² and, according to 2021 estimates, has a population of 783,773. The governorate consists of two cities, Port Said and Port Fouad, with Port Said divided into seven districts: East, Arab, Manakh, Zohour, Suburbs, South, and West, as illustrated in (Figure 1).

2. Study Importance

The importance of the study lies in:

2.1 Evaluating the efficiency of pre-university educational services in Port Said Governorate by providing crucial quantitative information that helps address issues related to these services.

2.2 Assisting relevant institutions in developing appropriate solutions to these problems in the future.

3. Reasons for Choosing the Topic

3.1 Despite the numerous studies conducted on Port Said Governorate, there is a notable

absence of research focused specifically on pre-university educational services in this area.

3.2 The study area is the birthplace of the researcher, which will facilitate the collection of relevant scientific data and ease the process of conducting field research.

3.3 There is an availability of statistics from various sources, in addition to previous studies, which will support the research.

3.4 The significance of the education sector as a vital service that merits thorough investigation and analysis for the advancement and development of society.

4. Study Objectives

4.1 To evaluate the efficiency level of educational services in the study area.

4.2 To investigate the level of satisfaction among students, teachers, and administrators regarding pre-university educational services.

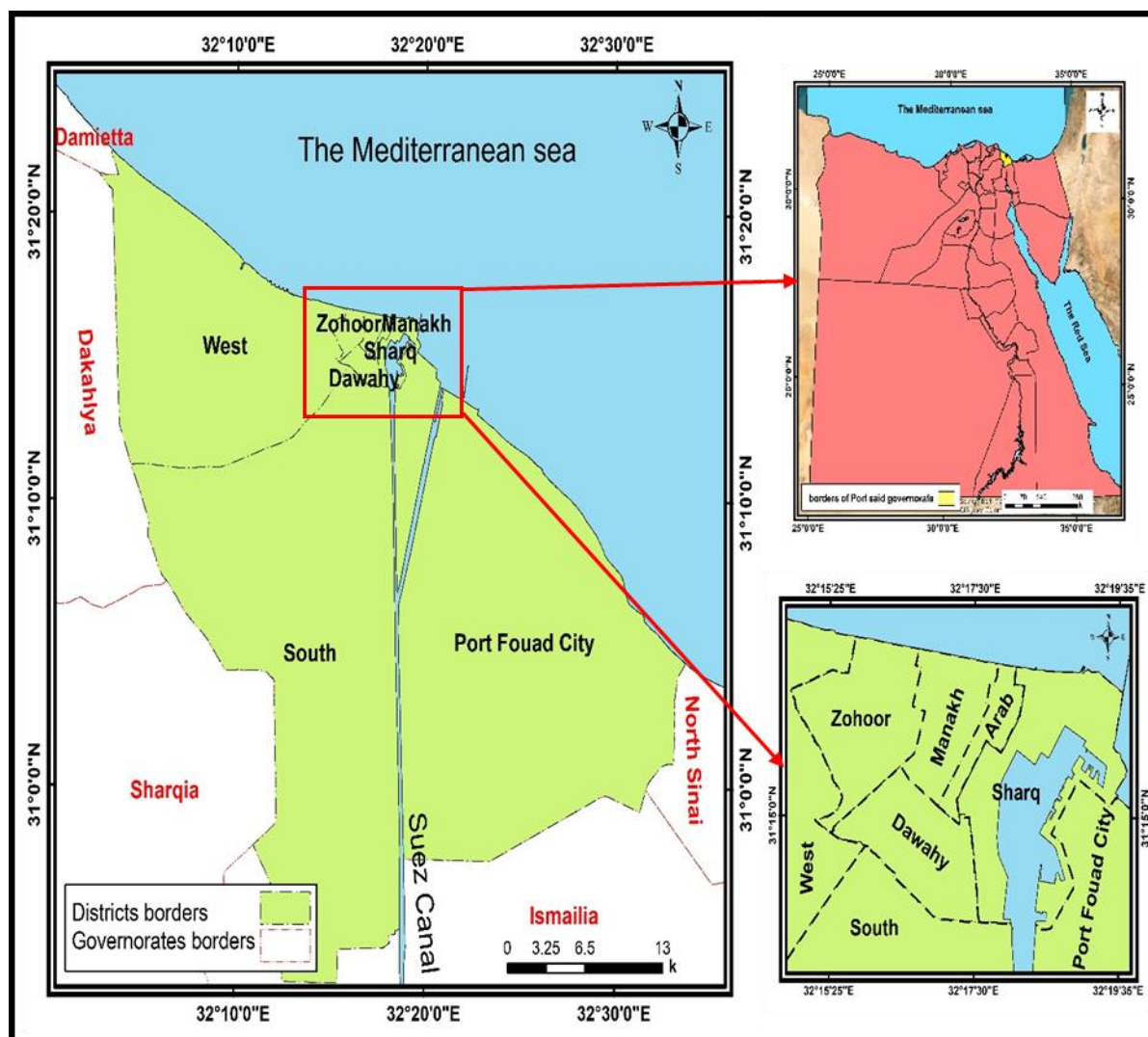
4.3 To formulate appropriate strategies for the enhancement of educational services.

5. Sources of the Study

5.1 Previous Studies

5.1.1 Studies addressing the governorate:

- The study by Warda Ahmed Said Mohamed Hassan (2010) focused on development in Port Said Governorate, examining the impact of natural factors on development, as well as human factors influencing the region, including social, agricultural, livestock, population, industrial, and tourism development.
- The study by Fatima Al-Zahra Al-Motawali Said Ahmed (2016) investigated the geography of human development in Port Said Governorate, covering general characteristics of the population, economic status, educational conditions, and health status, concluding with a geographic evaluation of human development indicators and their future using Geographic Information System (GIS) applications to enhance human development in the governorate



Source: Information Center, General Diwan of Port Said Governorate.

Figure 1. Geographical location and administrative division of Port Said Governorate in 2021

5.1.2 Studies related to the subject of the research:

- The study by Ifraaj Azab Said Pasha (1993) conducted a geographic survey of services in Menoufia Governorate, discussing the geographic approach to studying services, infrastructure services, sovereign services, and humanitarian services in the governorate. It also analyzed the geographic factors affecting the distribution of services, concluding with a practical study of service patterns in Menoufia.

- The study by Asmaa Hassan Mohamed Roslan (2016) explored educational services in Qena City using GIS applications,

discussing the role of GIS in studying educational services, key challenges and geographic factors affecting these services, and the spatial dimensions and future of educational services.

5.2 The Questionnaire:

The study measuring the efficiency of pre-university educational services relied on administering an electronic questionnaire to students across different educational stages, including public, private, and Azhar education. A total of 500 questionnaires were distributed, of which 493 were valid—302 were electronic (61.3%) and 191 were from field studies

(38.7%)¹. There were 7 invalid questionnaires. The electronic questionnaire sample was collected with assistance from relatives and friends by adding the researcher to WhatsApp groups of parents of elementary students and groups of intermediate and secondary students. The researcher also contacted students directly to complete the electronic questionnaires and shared the questionnaire link in school-related Facebook groups. Additionally, face-to-face interviews were conducted in schools to collect responses electronically.

The field study questionnaires were implemented due to challenges in obtaining a sufficient number of electronic responses. The researcher visited several institutes and schools at dismissal time, distributing paper questionnaires to students and subsequently collecting their electronic signatures.

6. Indicators of Students' Access to Basic and Secondary Education in Port Said Governorate

This section of the study relied on modes of transportation, travel time, transportation costs, and the distance traveled to reach school.

6.1 Indicator of the Means of Transportation Used to Reach School:

The modes of transportation utilized by students for their daily journeys are varied, as illustrated in Table (1) and Figure (2). The findings indicate that:

The highest percentage of students, at 38.3%, walk to school. This is followed by those who use microbuses at 29.4%, and those who travel by private cars at 28.8%. The percentage of students using school buses is relatively low at approximately 3.5%. These percentages vary across the three educational stages as follows:

- The Primary Stage:

42.3% of primary students walk to school,

representing the highest percentage. This is attributed to the widespread availability of primary schools in residential areas, making them easily accessible. The second-highest percentage is 34.4% for students using private cars, primarily for private and international schools. In third place, 18% of students use microbuses, generally for experimental schools and model institutes. The least used mode of transportation is school buses, accounting for 5.3% of primary students, largely due to the limited availability of school bus services.

-The Preparatory Stage:

In the intermediate stage, 38.7% of students walk to school, representing the highest percentage. It is noteworthy that this figure is lower than that of the elementary stage, indicating that intermediate schools are not as widely distributed as elementary schools. Following this, students use microbuses as their second mode of transportation, accounting for 30.9% of the total sample of intermediate students. The third mode of transportation is private cars, utilized by approximately 27.4% of students. Finally, school buses represent about 3% of the total sample of intermediate students.

-The Secondary Stage:

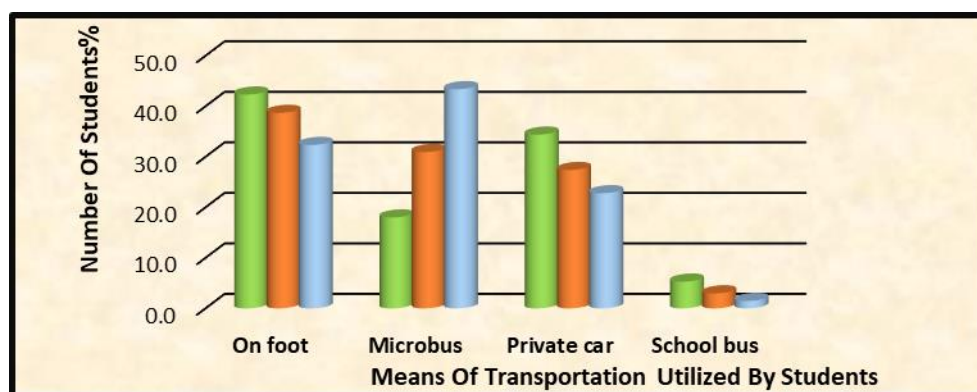
The highest percentage of transportation used by secondary students is microbuses, which account for 43.4% of the total sample of secondary students. This is attributed to the limited number of secondary schools due to their diversity, including general secondary, commercial, industrial, and agricultural schools, which are located farther from most homes. In contrast, elementary and intermediate schools are more widely spread. Following microbuses, 32.3% of students walk to school. In third place, private cars are used by 22.8% of students, while school buses account for approximately 1.5% of the total sample of secondary students.

¹ The field study was conducted from 9/14/2023 to 12/27/2023.

Table 1. Modes of Transportation Used by Students in Basic and Secondary Education in Port Said Governorate, 2023.

Means of transportation used to reach school	On foot		Microbus		Private car		School bus		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	80	42.3	34	18	65	34.4	10	5.3	189	100
Preparatory	65	38.7	52	30.9	46	27.4	5	3	168	100
Secondary	44	32.3	59	43.4	31	22.8	2	1.5	136	100
Total	189	38.3	145	29.4	142	28.8	17	3.5	493	100

Source: Field study 2023.



Source: Prepared by the student based on Table 1.

Figure 2. Means of transportation used by students of the study sample in Port Said Governorate in 2023

Different Means of Transportation Observed for Students in One of the Neighborhoods of Port Said Governorate (Image 1,2,3).

6.2 Indicator of Travel Time to School:

The time taken to reach school varies from student to student. As illustrated in the sample study in Table 2 and Figure 3, the travel times can be divided into three intervals.

- The Primary Stage:

The highest percentage of travel time for primary students is from 10 minutes to less than 20 minutes, reaching 41.3% of the total sample of primary students. This is followed by those who take 20 minutes or more, accounting for 30.7%. The lowest percentage of travel time, representing 28% of the total sample of primary students, is for those who take less than 10 minutes. This indicates that most primary students (70%) arrive at school in a short amount of time, due to the widespread distribution of elementary schools

across residential areas. The remaining percentage consists of students who use microbuses.

-The Preparatory Stage:

The highest percentage of travel time for preparatory students to reach school is from 10 minutes to less than 20 minutes, representing approximately 40.5%. This is followed by those who take less than 10 minutes, accounting for 32.7% of the total sample of preparatory students. The percentage for those who take 20 minutes or more decreases to 26.8% of the total sample of preparatory students. The study indicates that most students arrive in a short amount of time due to their use of transportation or the proximity of their homes to preparatory schools. Conversely, most students who take more than 20 minutes to reach school are those who walk.



Source: Field study 10/4/2023 AD

Image.2 Special means of transporting students to Salem Abdel Hadi Al-Azhar primary Institute in Al-Dawahi neighborhood



Source: Field study 10/15/2023 AD

Image.1 Special means of transporting students to the Good Shepherd Private Arabic School in Port Fouad City



Source: Field study 10/10/2023 AD

Image.3 Special means of transporting students to Al-Risala Modern School, private Arabic and languages, in Al-Dawahi district

- The Secondary Stage:

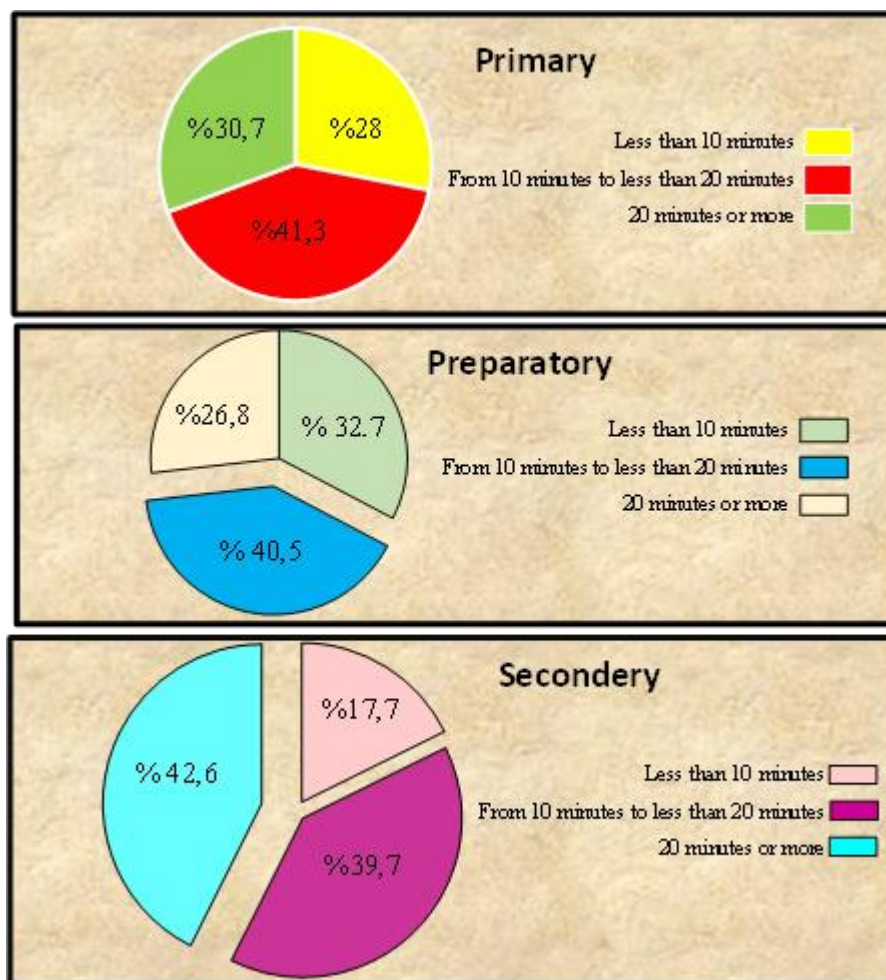
The highest percentage of travel time for secondary students to reach school is 42.6%, representing the group that takes 20 minutes or more. This is followed by those who take from 10 minutes to less than 20 minutes, accounting for 39.7%. The percentage for those who take less

than 10 minutes decreases to 17.7% of the total sample of secondary students. This study reveals that the highest percentage of students who take a long time to reach school is primarily due to most of them walking to school, despite the distance from their homes.

Table 2 Arrival time to schools for primary and secondary school students in Port Said Governorate in 2023

Time taken to reach school	Less than 10 minutes		From 10 minutes to less than 20 minutes		20 minutes or more		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	53	28	78	41.3	58	30.7	189	100
Preparatory	55	32.7	68	40.5	45	26.8	168	100
Secondary	24	17.7	54	39.7	58	42.6	136	100
Total	132	26.8	200	40.6	161	32.6	493	100

Source: Field study in 2023.



Source: Prepared by the student based on Table 2.

Figure 3. The time of students' arrival to schools in Port Said Governorate in 2023

6.3 Indicator of Cost to Reach School:

School is the environment in which students receive a comprehensive education, equipping them with the experiences, knowledge, and skills necessary for their journey toward progress and development within their community. As

illustrated in Table 3 and Figure 4, the cost of transportation for students to school varies according to the mode of transport and the time taken to reach the school.

- The Primary Stage:

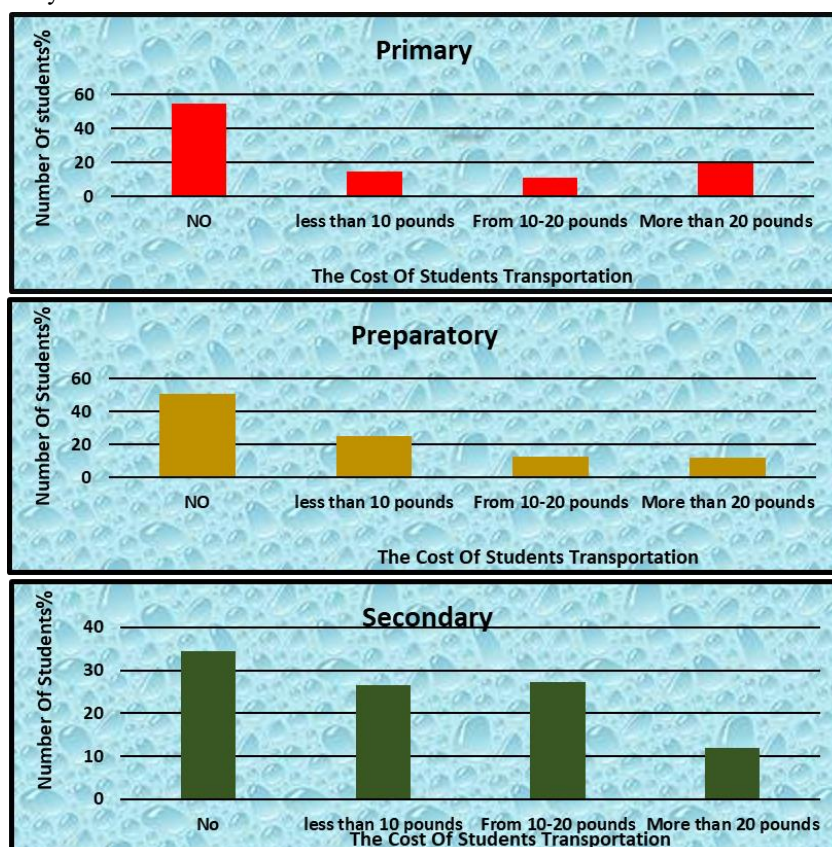
54.5% of the total sample of primary students do not incur any cost when reaching school, primarily due to the proximity of their residences to the schools. In the second position are the students who pay more than 20 Egyptian pounds

for their daily transportation to school, accounting for 19.6%. The third position is held by students who pay less than 10 pounds, representing 14.8%, followed by the students who pay between 10 and 20 pounds, comprising 11.1% of the total sample of primary students.

Table 3 Cost of Transportation for Students in the Sample to School in Port Said Governorate, 2023.

Cost of getting to school	No		less than 10 pounds		From 10-20 pounds		More than 20 pounds		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	103	54.5	28	14.8	21	11.1	37	19.6	189	100
Preparatory	85	50.6	42	25	21	12.5	20	11.9	168	100
Secondary	47	34.5	36	26.5	37	27.2	16	11.8	136	100
Total	235	47.7	106	21.5	79	16	73	14.8	493	100

Source: Field study 2023.



Source: Prepared by the student based on Table 3.

Figure 4. The cost of transportation of the study sample students to school in Port Said Governorate in 2023

-The Preparatory Stage:

In the preparatory stage, 50.6% of the total sample of students do not incur any cost when reaching school due to the proximity of the schools to their homes. In the second position, some students pay less than 10 pounds to reach school, representing 25%. This is followed in the third position by students who pay between 10 and 20 pounds, accounting for 12.5%. Lastly, in the fourth position, students who pay more than 20 pounds represent 11.9% of the total sample of preparatory students.

-The Secondary Stage:

34.5% of secondary school students do not incur any cost when reaching their schools due to the proximity of some schools to their residences. Additionally, 27.2% of students pay between 10 and 20 Egyptian pounds for their daily transportation to school, which ranks second. In the third position, some students pay less than 10 pounds, accounting for 26.5%. Lastly, in the fourth position, some students pay more than 20 pounds, representing 11.8% of the total sample of secondary students.

From this, it is evident that students who incur no cost to reach their schools either walk or use their parents' cars. Those with transportation costs of less than 10 pounds typically use minibuses to commute to and from school. Meanwhile, students whose costs range from 10 to less than 20 pounds, as well as those whose costs exceed 20 pounds, primarily use school buses or private transportation services.

6.4 Distance Indicator for Reaching School:

The distance traveled varies from one educational stage to another and from one school to another. Primary schools are more widely distributed, resulting in shorter distances for this level compared to higher educational stages. Consequently, the distance increases as the educational level rises. The following details are illustrated in [Table 4](#) and [Figure 5](#):

-The Primary Stage:

It was found that 36% of the students in the study sample travel a distance of 500-1000 meters to reach their school, followed by 34.9% of the

students who travel a distance of 200-500 meters. In third place, it was shown that 14.8% of the total students in the study sample at this stage travel a distance of more than 1000 meters, while in fourth place, it was found that 14.3% travel a distance of less than 200 meters to reach the school.

- The Preparatory Stage:

The preparatory stage includes 37.5% of students who travel a distance of 500-1000 meters to reach their school. In second place, students who travel a distance of 200-500 meters represent 32.7% of the total students in the study sample at this stage. In third place are students who travel a distance of less than 200 meters, constituting 19.1%. Lastly, the fourth category includes students who travel a distance of 1000 meters or more, representing 10.7% of the total students in the study sample at the preparatory stage.

- The Secondary Stage:

The secondary stage comprises 36.8% of students who travel a distance of 500-1000 meters to reach their school, and it includes 27.9% of students who travel a distance of 1000 meters or more, making this group the second highest. In third place, it was found that 25.7% of the total students in the study sample at the secondary stage travel a distance of 200-500 meters, while fourth place represents 9.6% of the total students who travel a distance of less than 1000 meters.

7- Indicators of the Educational Process for the Study Sample Students

The field study showed the evaluation of students regarding the educational process, as illustrated by the following indicators:

7.1 Indicator of the Class Schedule:

The class schedule is a vital tool for organizing the daily activities at school and among its staff, particularly the educational faculty members. It helps achieve a balance between different lessons, avoids overlapping tasks, and ensures that activities are distributed in a manner that aligns with the needs and capabilities of the students. Additionally, it contributes to achieving educational goals more

efficiently and improving educational performance.

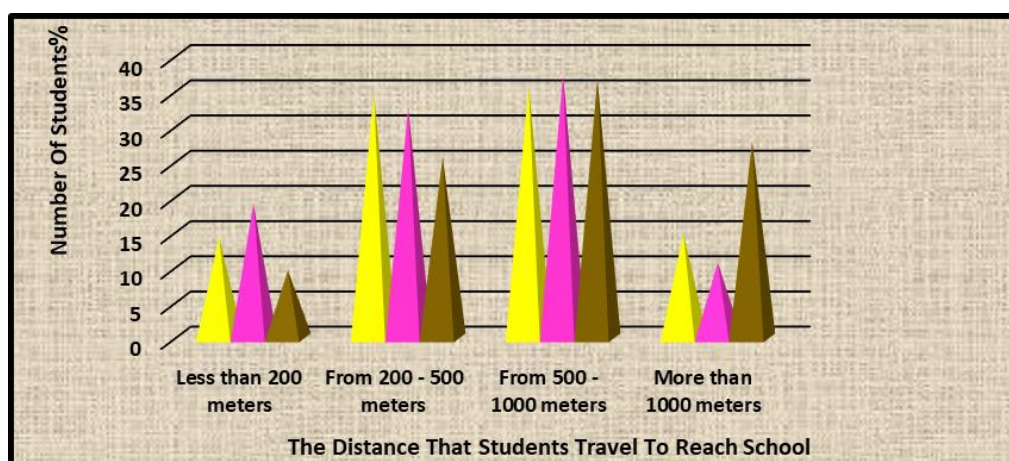
From the analysis of [Table 5](#), it is evident that 64.1% of the study sample students indicated that the class schedule is crowded to some extent,

while approximately 35.9% reported that the schedule is not crowded. These percentages varied across the three educational stages as follows:

Table 4. The Distance Traveled by Students in Primary and Secondary Education to Reach Schools in Port Said Governorate, 2023.

Distance traveled to school	Less than 200 meters		From 200 - 500 meters		From 500 - 1000 meters		More than 1000 meters		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	27	14.3	66	34.9	68	36	28	14.8	189	100
Preparatory	32	19.1	55	32.7	63	37.5	18	10.7	168	100
Secondary	13	9.6	35	25.7	50	36.8	38	27.9	136	100
Total	72	14.6	156	31.6	181	36.7	84	17	493	100

Source: Field study 2023.



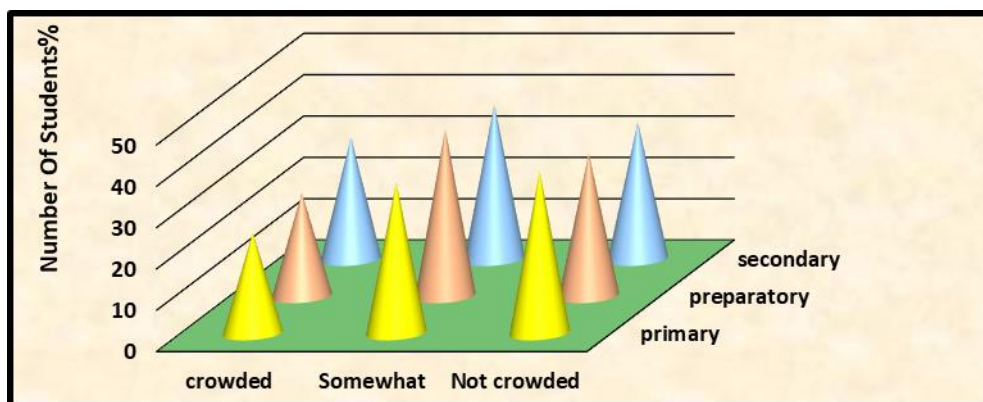
Source: Prepared by the student based on [Table 4](#).

Figure 5. The distance traveled by the students of the study sample to reach school in Port Said Governorate in 2023

Table 5. Class Schedule for Basic and Secondary Education Students in Port Said Governorate, 2023.

Class schedule	crowded		Somewhat		Not crowded		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	46	24.3	69	36.5	74	39.2	189	100
Preparatory	42	25	68	40.5	58	34.5	168	100
Secondary	40	29.4	51	37.5	45	33.1	136	100
Total	128	26	188	38.1	177	35.9	493	100

Source: Field study 2023.



Source: Prepared by the student based on Table 5.

Figure.6 The study schedule for classes for the students of the study sample in Port Said Governorate in 2023

-The Primary Stage:

This stage includes 39.2% of students who indicated that the class schedule is crowded, compared to 36.5% who stated that it is somewhat crowded. The remaining percentage represents 24.3% of students who reported that it is not crowded.

-The preparatory Stage:

The preparatory stage includes 40.5% of the study sample students who indicated that the class schedule is somewhat crowded for them. Additionally, around 34.5% of students reported that the schedule is not crowded, while 25% stated that it is crowded.

-The Secondary Stage:

This category includes students from the secondary stage of the study sample, where the field study revealed that 37.5% reported that the class schedule is somewhat crowded, in contrast to 33.1% who indicated that it is not crowded, and 29.4% who stated that it is crowded. It is noted that most of those who reported a crowded schedule are first-year secondary students due to the higher number of subjects compared to the second and third years.

It is evident from the previous analysis that the percentages are close, which indicates the mental disparity among students at this stage. Some students, particularly those with average abilities, struggle with the accumulation of school

lessons, while others, with higher abilities, do not face this challenge.

7.2 Indicator of Academic Achievement from School:

Academic achievement holds significant importance for individuals, as it represents a series of stages through which a student progresses to reach a certain level of competency in their studies across all educational phases. It enables the assessment of students' levels through various tests prepared and administered by teachers to measure student performance at each stage. Furthermore, academic achievement is not merely about passing educational stages; it also informs the choice of field of study, career selection, and the social role an individual will undertake, as well as the social status they will attain.

Based on Table 6 and Figure 7, the following is evident:

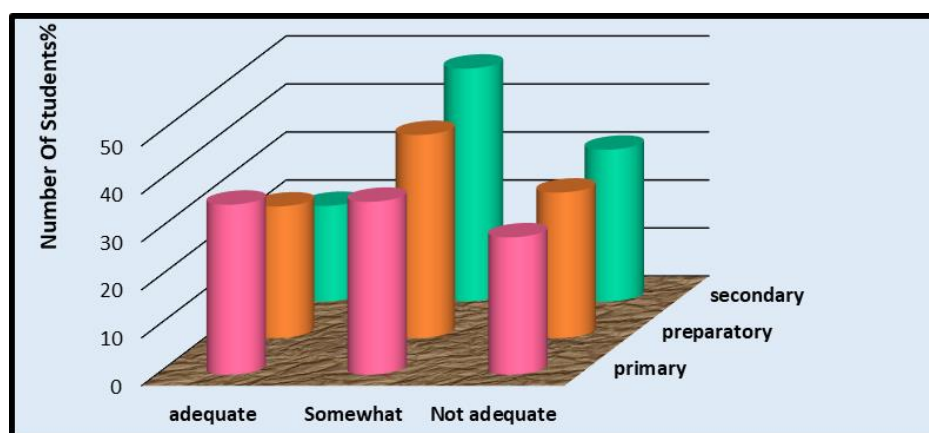
-The primary Stage:

The field study of primary students revealed that more than a quarter of the sample students believe their academic achievement is insufficient, representing 28.6%. Meanwhile, students who believe their academic achievement is sufficient or somewhat sufficient make up 71.4%.

Table 6. Academic Achievement of Basic and Secondary Education Students in Port Said Governorate, 2023.

Academic achievement	adequate		Somewhat		Not adequate		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	67	35.4	68	36	54	28.6	189	100
Preparatory	46	27.4	71	42.3	51	30.3	168	100
Secondary	27	19.9	66	48.5	43	31.6	136	100
Total	140	28.4	205	41.6	148	30	493	100

Source: Field Study in 2023.



Source: Prepared by the student based on Table 6.

Figure.7 Academic achievement of students in the technical school in Port Said Governorate in 2023

-The preparatory Stage:

The study of middle school students revealed that those who consider their academic achievement to be insufficient constitute 30.3%, while the students who believe it is sufficient or somewhat sufficient represent 69.7%.

-The secondary Stage:

The results of the field study revealed that 31.6% of high school students believe that academic achievement is insufficient, while 68.4% believe that it is adequate to some extent, which represents more than half of the study sample.

As for the primary stage, the study showed that some students believe their academic level is inadequate due to overcrowded classrooms, where the number of students can reach 60 per class. This makes it difficult for all students to

fully comprehend the lessons taught by the teachers. Those who struggle to understand in class often resort to tutoring groups and private lessons due to their weak performance in public schools.

In private schools, although the number of students does not exceed 30 per class, there are still students who perform poorly. In such cases, the school administration contacts parents directly to encourage them to enroll their children in summer tutoring groups, where the number of students is limited to three.

Regarding the middle and high school stages, students who also believe that academic achievement is insufficient attribute this to a lack of strong foundational education in earlier stages. Despite the separation of boys and girls in middle schools, the division of high school into different branches, the absence of overcrowded classes, and the availability of modern equipment and labs

in schools, some students still struggle academically. As a result, they too seek private lessons and school-based tutoring groups

7.3 Private Tutoring Index and Its Causes:

This phenomenon is considered one of the major problems facing education in Egypt, as it diminishes the effectiveness of the educational

system and places a financial burden on parents who must provide for it. Several factors have contributed to the increased demand for private tutoring, including the difficulty of the curricula, the growing number of students in classrooms, the desire to achieve high grades, and inadequate understanding from school. Below is a detailed presentation of these reasons:

Table 7. Utilization of Private Tutoring by Basic and Secondary Education Students in Port Said Governorate in 2023

Using private lessons	Yes		No		Total	
	Number of students	%	Number of students	%	Number of students	%
Primary	98	51.9	91	48.1	189	100
Preparatory	110	65.5	58	34.5	168	100
Secondary	88	64.7	48	35.3	136	100
Total	296	60	197	40	493	100

Source: Field study in 2023

Table 8. Reasons for using private lessons for basic and secondary education students in Port Said Governorate in 2023

Reasons for using private lessons	Lack of good understanding from the school		Increased numbers of students in the class		Difficulty in exams		Obtaining the highest grades Overall		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	27	27.5	19	19.4	17	17.4	35	35.7	98	100
Preparatory	35	31.8	13	11.8	24	21.8	38	34.6	110	100
Secondary	28	31.8	13	14.8	15	17	32	36.4	88	100
Total	90	30.4	45	15.2	56	18.9	105	35.5	296	100

Source: Field study in 2023.

-The Primary Stage:

From the study of this stage, it is evident that 48.1% of the sampled students do not rely on private tutoring, as their academic performance in schools is sufficient. Approximately 51.9% of the total sample of students utilize private tutoring for several reasons. The first reason is to achieve higher grades, which constitutes 35.7%. Following this, inadequate understanding in the classroom represents 27.5%, while an increase in the number of students in the class accounts for

19.4%. Finally, the difficulty of exams makes up 17.4% of the total students in the study sample.

-The Preparatory Stage:

In the preparatory schools, the study indicates that 34.5% do not utilize private tutoring, compared to 65.5% who do. This reliance on private tutoring is due to several reasons: first, the desire to achieve higher grades, which constitutes 34.6%; second, inadequate understanding from school, which also represents 31.8%; third, the difficulty of exams at 21.8%; and fourth, the increase in the number of students in the

classroom at 11.8% of the total students in the preparatory study sample.

-The Secondary Stage:

The study of secondary schools revealed that 35.3% of students do not rely on private tutoring, while 64.7% do. The reasons for this reliance include the desire to achieve high grades, which accounts for 36.4%, followed by inadequate understanding in school at 31.8%, the difficulty of exams at 17%, and finally, the increase in the number of students in the classroom at 14.8% of the total students in the study sample for the secondary stage.

The field study of the reasons for private tutoring indicates the following:

Achieving High Grades In the primary stage, parents are concerned with their children obtaining high grades to excel in the classroom. In the preparatory stage, students aim for high grades to gain admission to general secondary schools, technical schools, and nursing programs, as these institutions help students secure prestigious jobs later on and require high scores in the preparatory stage. In the secondary stage, students seek high grades to enter various universities; for instance, some students aim for high grades to qualify for prestigious colleges and other competitive programs.

Inadequate Understanding in School This is due to the limited time allocated for lessons compared to the time needed for students to grasp the curriculum. Additionally, there is insufficient time to address students' questions and inquiries.

The long duration of the school day also contributes to students' inability to maintain focus at all times.

Exam Difficulty Students face challenges with the difficulty of the curriculum relative to their levels.

Increase in Class Size A higher number of students in the classroom leads to teachers' inability to effectively convey information to each student, given the varying abilities among students. Furthermore, teachers may struggle to manage disruptive students due to the larger class sizes.

7.4 Noise index inside and outside the classroom and its causes:

The concept of noise is a mixture of annoying and unwanted sounds that affect the activity of teachers and students inside the school. When building a new school, it must be taken into account that its location be in a quiet place far from the sources of noise represented by the movement of cars and loud speakers used in markets and street vendors. Table (9, 10) shows the following:

-The Primary Stage:

54.5% of the total sample of students report experiencing noise both inside and outside the school, primarily due to traffic from vehicles on nearby streets, which accounts for 28.1%. This is particularly evident in schools located on main roads, such as the Lieutenant Samah Qandil Primary School. Additionally, 31.1% of students report suffering from noise generated by street vendors, while 13.6% are also disturbed by

markets situated around the school. The remaining 27.2% of students report experiencing noise for other reasons. Conversely, approximately 45.5% do not experience any noise either inside or outside the school.

-The Preparatory Stage:

In the preparatory stage, the study indicates that 45.2% of the total sample of students experience noise inside and outside the classroom. This issue is attributed to several factors, with vehicle traffic on roads near schools accounting for 34.2%. This percentage is equal to that of students who suffer from noise due to other reasons. Street vendors contribute 19.7% to the noise levels, while markets surrounding some schools account for 11.8% of the total sample. Meanwhile, 54.8% of students do not experience noise either inside or outside the classroom.

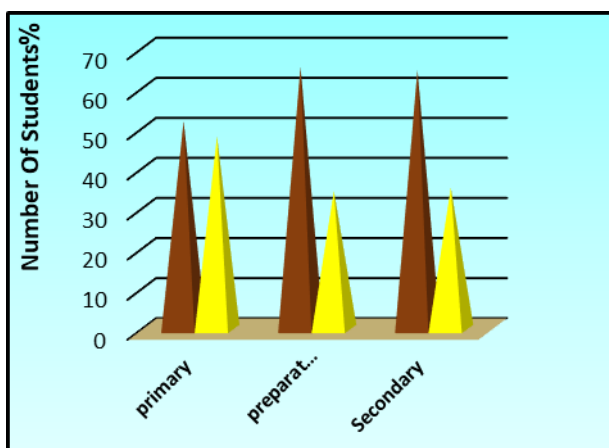
-The Secondary Stage:

The data from secondary schools reveal that 56.6% of students do not suffer from noise either inside or outside the school, whereas approximately 43.4% do experience noise for various reasons. The most significant contributor

is vehicle traffic, which accounts for 39%. Following this, other causes represent about 35.6%, while street vendors account for 20.3%. The least significant contribution comes from markets surrounding the school, making up 5.1% of the total sample.

From this, we conclude that the sources of noise are widespread throughout the governorate. These causes can be explained as follows: First, vehicle traffic poses a significant problem, as many schools are located directly on main roads, and some are situated in areas with heavy traffic

congestion. Second, markets, particularly daily markets near schools, especially in popular neighborhoods, contribute to the noise. Third, street vendors represent one of the biggest challenges for students, as they often use loudspeakers, which disrupt teachers and waste instructional time. Other causes include the proximity of some schools to ambulance stations, firefighting centers, and craft areas, which are characterized by continuous noise throughout the day.



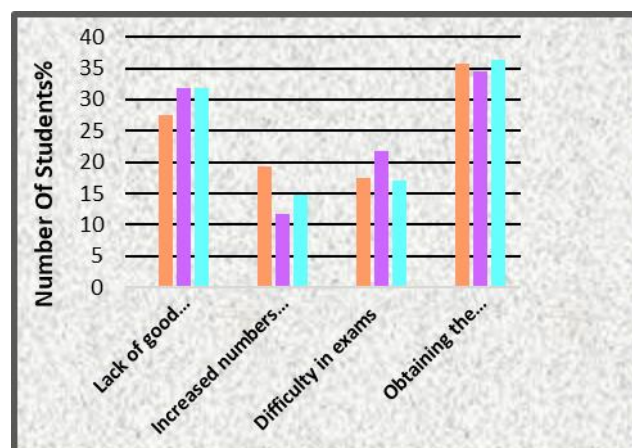
Source: Prepared by the student based on Table 7
Figure 8. Recruitment of private lessons for students in the study sample in Port Said Governorate in 2023

7.5 Pollution Sources Index

The location of schools is one of the important matters that must be taken into consideration because it affects the educational process. Therefore, a healthy location must be chosen for the students and the quality of the indoor air must be ensured because it affects the health of the students in the schools and thus the surrounding environment. The following table shows the following:

-The Primary Stage:

It was found that 55% of the sample students do not suffer from any sources of pollution around the school location, while 45% do experience pollution sources in their vicinity.



Source: Prepared by the student based on Table 8.
Figure 9. Reasons for using private lessons for students in the study sample in Port Said Governorate in 2023

-The Preparatory Stage:

The data from preparatory schools indicate that 48.2% of the total sample of students do not suffer from any sources of pollution around the school location, whereas 51.8% report experiencing pollution sources nearby.

-The Secondary Stage:

In secondary schools, it is evident that 73.5% of the total sample of students do not suffer from any sources of pollution, while 26.5% do experience pollution sources around the school location.

Through this study, we conclude that there are three sources of pollution affecting students within schools, which are as follows: Auditory Pollution This is manifested in the noise previously mentioned. Air Pollution This is caused by smoke from factories located in certain

neighborhoods, such as the suburbs, the southern area, and the western district. Visual Pollution This is represented by vendors setting up stalls in front of schools. For example, in the Housing Bank area in the suburbs, there is visual pollution that leads to environmental pollution, particularly in areas like Al-Shouna, where waste is spread

throughout the region and accumulates on the external walls of schools. This accumulation can lead to the breeding of rodents and the emergence of insects, which may reach the schools, negatively impacting the students inside.

Table 9. Noise inside and outside the classroom for basic and secondary education students in Port Said Governorate in 2023

Noise inside and outside the classroom	Yes		Somewhat		No		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	76	40.2	27	14.3	86	45.5	189	100
Preparatory	59	35.1	17	10.1	92	54.8	168	100
Secondary	35	25.7	24	17.7	77	56.6	136	100
Total	170	34.5	68	13.8	255	51.7	493	100

Source: Field study in 2023.

Table 10. Causes of noise inside and outside the classroom for basic and secondary education students in Port Said Governorate in 2023

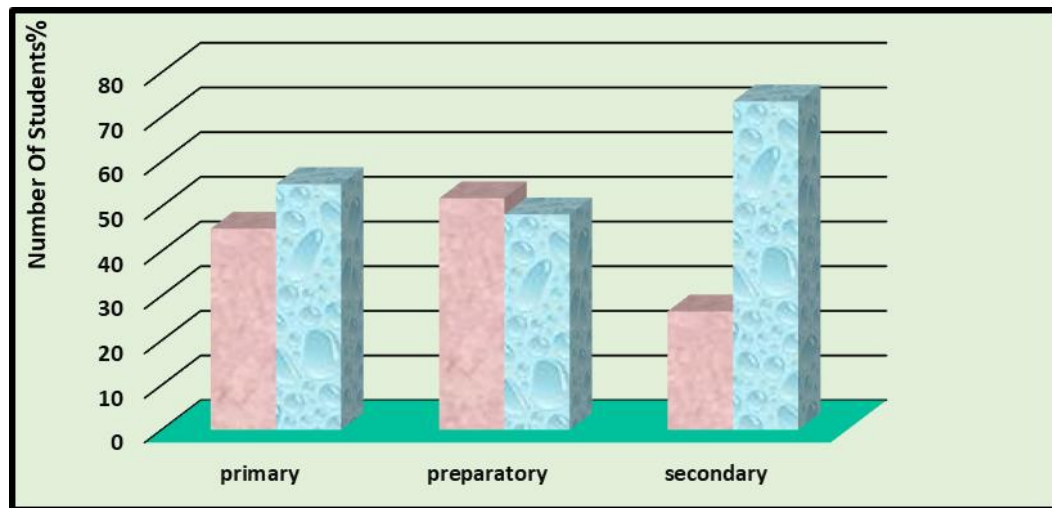
Causes of noise	markets		car traffic		street vendors		other		Total	
	Number of students	%	Number of students	%	Number of students	%	Number of students	%	Number of students	%
Primary	14	13.6	29	28.1	32	31.1	28	27.2	103	100
Preparatory	9	11.8	26	34.2	15	19.7	26	34.2	76	100
Secondary	3	5.1	23	39	12	20.3	21	35.6	59	100
Total	26	10.9	78	32.8	59	24.8	75	31.5	238	100

Source: Field study in 2023.

Table 11 Sources of pollution for primary and secondary education students in Port Said Governorate in 2023

Sources of pollution	Yes		No		Total	
	Number of students	%	Number of students	%	Number of students	%
Primary	85	45	104	55	189	100
Preparatory	87	51.8	81	48.2	168	100
Secondary	36	26.5	100	73.5	136	100
Total	208	42.2	285	57.8	493	100

Source: Field Study 2023.



Source: Prepared by the student based on Table 11.

Figure 10. Sources of pollution for students in the study sample in Port Said Governorate in 2023



Source: Field study in 2023

Image 4. Field photos from some public and private schools in Port Said Governorate

8. Results And Recommendations

8.1. Results

- The means of transportation for students to school vary from neighborhood to neighborhood, and the time taken to reach school differs from one student to another, depending on the proximity of the school to the students' residences.
- The modes of transportation used by students for their daily commute vary according to the distance traveled, with differing proportions of each mode across educational stages in transporting students from their homes to their schools.
- Students either walk to school or use their parents' cars, with the distance they cover ranging from 500 to 1000 meters at most. There are more students in the elementary stage. Due to the greater distances of preparatory and secondary schools, sometimes the distance traveled by students from their homes to their schools exceeds 1000 meters.
- The cost of transportation from home to school is a critical factor for students. The study shows that some students reach school without any cost, while another group incurs a cost of less than 10 Egyptian pounds. Additionally, there are students whose transportation costs range from 10 to 20 pounds, and others whose costs exceed 20 pounds.
- There is a similarity in the proportions of students struggling with their academic schedule across the three educational stages, as well as among those who do not experience schedule congestion in elementary, preparatory, and secondary levels. This indicates a cognitive disparity among students at different educational stages.
- The academic achievement rates among students vary significantly, with nearly 50% believing their academic performance is adequate and 50% feeling it is insufficient.

This discrepancy is attributed to differences in students' educational abilities.

- About 60% of students resort to private tutoring for various reasons, including insufficient understanding in class, a high number of students in each class, challenging exams, and the desire to achieve high grades. Conversely, 40% do not seek private tutoring, and they are generally the same students who feel their academic performance is adequate from school.
- A significant number of students suffer from noise due to markets around the school and street vendors. It was found that these students often come from lower-income neighborhoods, whereas those suffering from noise caused by vehicle traffic are from more affluent areas, particularly schools located on main roads in these neighborhoods.
- The field study identified three types of pollution affecting students in schools: auditory pollution, air pollution, and visual pollution.

8.2. Recommendations

- Provide more private transportation options for students to schools due to some students' reliance on private cars, which imposes significant financial burdens on families, especially when these schools are not located near the students' residences.
- Establish a mechanism to organize the curriculum in line with the academic schedule, as some schools suffer from schedule congestion.
- Teachers should consider individual differences among students and avoid excessive explanation of the curriculum during class to allow students to review what has been taught.
- Reduce the number of students in classrooms and reorganize the school facilities to utilize more rooms for classrooms effectively.
- Implement strict regulations to limit private tutoring in cases where mechanisms for

organizing class time and curricula are enforced.

- Conduct intensive campaigns to eliminate sources of noise around school locations.

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Appendices

Appendix (1): Questionnaire Directed to a Sample of Students Regarding Pre-University Educational Services in Port Said Governorate in 2023

Port Said University

Faculty of Arts

Graduate Studies and Research

Department of Geography and Geographic Information Systems

Questionnaire Form for Students Regarding Pre-University Educational Services for Completing the Research Study Titled:

Measuring the Level of Efficiency of Pre-University Educational Services in Port Said Governorate

(The information in this form is confidential and for research purposes only)

1. Name of the School:
2. Educational District:
3. Gender: Male () Female ()
4. district:
5. Educational Stage: Primary () Preparatory () Secondary ()
6. School Type: Government () Private () Al-Azhar ()
7. Mode of Transport Used for Commuting to and from School:
() Walking () Private Car () School Bus () Microbus
8. Time Taken to Reach School:
() Less than 10 minutes () From 10 minutes to less than 20 minutes () 20 minutes or more
9. Daily Transportation Cost to School (Round Trip):
() Less than 10 EGP () From 10 – 20 EGP () More than 20 EGP
10. Distance from Home to School:
() Less than 200 meters () From 200 – 500 meters () From 500 - 1000 meters () More than 1000 meters
11. Do you rely on private tutoring? Yes () or No ()
If Yes, what is the reason for relying on private tutoring:
() Lack of understanding from school () Increase in the number of students in class
() Difficulty of exams () Achieving the highest grades
12. Class Schedule:
() Crowded () Somewhat () Suitable
13. Academic Achievement from School:
() Sufficient () Somewhat () Insufficient
14. Do you experience noise inside or outside the classroom:
() Yes () Somewhat () No
15. If the answer is (Yes), what are the sources of the noise:
() Markets () Traffic
() Street Vendors () Other
16. Is your school located near any source of pollution:
() Yes () No

Thank you for your cooperation/

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