

# Response strategy and its impact on educational services analysis and application in light of the corona pandemic " Al-DourA area as a case study"

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## ABSTRACT

The educational services faced a difficult challenge to continue education in light of the Corona epidemic crisis, because of that it become clear the importance of the response strategy in developing local communities and finding solutions and alternatives for the continuation of education, as the Corona pandemic directly affected the city as a whole and the functioning of educational services in particular.

The problem of the research is manifested by the increasing inadequacy of educational services performance as a result of the Corona pandemic crisis, and the weak development of means of communication, staff and methods that are in line with this pandemic. Therefore, the research **aims** to activate the role of the local response strategy in managing and organizing educational services in order to confront the epidemic crisis and develop the performance of educational services.

The research **hypothesized** that there is an impact of effective response strategies on educational services in light of crises, especially the crisis of the Corona pandemic. The study area (Al-Doura area) was chosen as a model to know and study the most important response strategies followed for the continuation of education in light of the epidemiological crisis.

The research used the **descriptive analytical method** through the use of the statistical program (spss) to apply descriptive statistics for a sample (for teachers and students), and to test hypotheses between the study variables and the point of view of (students and teachers).

The **results** showed that the use of the response strategy with its elements (guiding, organizational, planning, and technical) by educational institutions will lead to the success of educational services in the face of the Corona pandemic crisis. Therefore, The research **recommends** the necessity of adopting e-learning to limit the spread of the epidemic among students and teachers, and using the modern technological methods, as well as pointing to the importance of training teachers and students on how to use e-learning platforms and programs, in order to continue giving education and achieve the best results after recovering from the epidemic crisis.

**Keywords:** response strategy, educational services, Pearson correlation coefficient, Mann-Whitney test, COVID-19, e-learning.

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## Introduction

In this research, the study community, study tool, statistical methods and tools will be reviewed to extract results from the information and find their required hypotheses using the (spss) program for the main research parts, and find the correlation relationship between the axes of the expert questionnaire and the student opinion poll. To reach a relationship that links educational services with an effective response strategy in light of Corona pandemic

**The importance of the research:** The importance of the research lies in the importance of continuing the functional performance of educational services and the best results and mechanisms in line with the epidemiological crisis within the available capabilities, in order to achieve the best results in light of the Corona pandemic (Covid-19).

**The research problem:** the increasing deficient performance of educational services as a result of the crisis of the Corona pandemic (Covid-19), and the weak development of means of communication, cadres, and methods that are consistent with this pandemic.

**The aim of the research:** to enhance the role of local response strategies in the follow-up and continuation of education in light of the epidemic crisis.

**Research hypothesis:** There is a relationship related to the effectiveness of response strategies and the continuity of performance of educational services in light of the Corona pandemic (Covid-19).

**Research Methodology:** The research adopts an analytical descriptive approach to extrapolate the educational variables in the study area and adopting response strategies using a SPSS program.

**The research community**

The study community includes teachers and students who were affected by the Corona pandemic from different schools in the Doura area, especially the most epidemic areas, and their number (61) teachers, including (23) secondary school teachers, (22) middle school teachers, (16) primary teachers and (50) students. 31 secondary school students, (13) middle school students, and (6) primary school students for the academic year (2021-2022), as shown in Table (3-1), and a questionnaire (116) was made and distributed to the selected sample of teachers and students with a ratio of ( 100%), and (111) questionnaires were returned with answers which represents a percentage of (96%).

Table (1) research community

No.	research community	Career Title	Repetition	Repetition percentage
1	Teachers	middle school teacher	23	%37.7
		Secondary school teacher	22	%36.1
		Primary school teacher	16	%26.2
		<b>Total</b>	<b>61</b>	<b>%100</b>
2	students	middle school student	31	%62
		Secondary school student	13	%26
		Primary school student	6	%12
		<b>Total</b>	<b>50</b>	<b>%100</b>

**Addition and graphical analysis techniques**

**study tool**

The researcher used the following tools to collect the data, as follows:

-Primary data: It was obtained through the questionnaire form, which is an inclusive measurement tool through which we obtain data and information to achieve the purpose of the study, The questionnaire statements are clear and not ambiguous so that the respondents can understand them and understand their purpose

-Other secondary sources: There are different data sources that the researcher used in creating this study, which are represented in scientific researchs, theses , books and articles on the Internet.

**-Statistical methods and tools**

In order to extract the results from the information and to find the required hypotheses, the statistical package program (IBM SPSS V.26) was used for statistical analysis, as follows:

**Statistical description:**

**a. Repetition and percentage of Repetition recurrence**

It shows the number of respondents' answers to the triple scale, whether they agree or not with the questionnaire statements, and the ratios of these answers to the triple scale.

**b. Analysis tools include the use of the following test tools and hypotheses.**

-person's Correlation Coefficient.

-Mann-whitney test: A parameter test tool used to compare two independent samples.

**person's Correlation Coefficient**

Correlation is a tool that shows the relationship and the strength and direction of the relationship between two variables that used to be (x,y), without the need to know the causality between them. The relationship between them may be linear and may be non-linear or there is no relationship at all. For example, there is a relationship between a person's weight (x) and height (y), while there is no relationship between a person's height (x) and father's age (y):

$$r = r(x, y) = \frac{SS_{xy}}{\sqrt{SS_x} \sqrt{SS_y}} = \frac{\sum_{j=1}^n (x_j - \bar{x})(y_j - \bar{y})}{\sqrt{\sum_{j=1}^n (x_j - \bar{x})^2} \sqrt{\sum_{j=1}^n (y_j - \bar{y})^2}}$$

r; person's Correlation Coefficient

x; first variable

y; second variable

(Muhammad Hussain, 2012, p.199) (Muhammad Sobhi, 2012, p.380))

Table (2) Correlation matrix between the point of view of a sample of teachers and students in relation to the independent variable response strategy and the dependent variable educational services

Correlations						
Teachers opinion		organizational and guiding dimension	Planning dimension	Technical dimension	organizational and guiding dimension	Technical dimension
organizational and guiding dimension	Pearson Correlation	1	.588**	.372**	-.051	.054
	Sig. (2-tailed)		.000	.003	.726	.711
	N	61	61	61	50	50
Planning dimension	Pearson Correlation	.588**	1	.514**	.161	.031
	Sig. (2-tailed)	.000		.000	.263	.832
	N	61	61	61	50	50
Technical dimension	Pearson Correlation	.372**	.514**	1	.059	.123
	Sig. (2-tailed)	.003	.000		.685	.397
	N	61	61	61	50	50
Students opinion		organizational and guiding dimension	Planning dimension	Technical dimension	organizational and guiding dimension	Technical dimension
organizational and guiding dimension	Pearson Correlation	-.051	.161	.059	1	.217
	Sig. (2-tailed)	.726	.263	.685		.130
	N	50	50	50	50	50

<b>Technical dimension</b>	<b>Pearson Correlation</b>	.054	.031	.123	.217	1
	<b>Sig. (2-tailed)</b>	.711	.832	.397	.130	
	<b>N</b>	50	50	50	50	50

\*\* . Correlation is significant at the 0.01 level (2-tailed).

It is clear from Table (1) that the correlation coefficients show that there is a correlation between the dimensions (organizational, indicative, schematic, technical) respectively for the teachers’ point of view of the independent variable strategy response, its value is (0.588, 0.514, 0.372) respectively. It is considered a partial positive correlation (Partial direct relationship) and at the level of statistical significance (0.000, 0.003) respectively, and its value is confined between (-1, +1), this means that the use of the Ministry of Education and its directorates elements of the response strategy (organizational, guidance, planning, technical) will lead to the success of educational services in the face of the Corona crisis, while the failure to use the response strategy will lead to failure or weakness in educational services in the face of the Corona crisis according to teachers’ opinions.

As for the correlation coefficients for dimensions (organizational, indicative, technical) for the students’ view of the dependent variable on educational services, it was found that there is no statistically significant correlation between them, its value is (0.217) and at the level of significance (0.13), note that the acceptable level is at (0.05), this means that the students’ point of view about the dependent variable of educational services, shows that there was no correlation between the axes of the variable educational services in terms of the existence of the e-learning system, and whether the school had experience in this aspect, as well as whether this aspect affected the educational level of the students.

**The Mann-Whitney test**

This test was defined by both (Mann and Whitney), and it is a teacher test, used to find out and test whether there are statistically significant differences between the averages of two independent societies with the same shape and without specifying or knowing the type of distribution, or if the data of the two samples are inaccurate or It depends on the order of the individuals of the two samples in terms of value. To conduct the test, the following is done

Define a hypothesis test:

$$\mu_2 \neq \mu_1 : H_0$$

$$\mu_2 = \mu_1 : H_1$$

H0: There are no differences between the average responses of the two independent samples of professors and students.

H1: There are differences between the average responses of the two independent samples of professors and students.

Use the test rule (U) as follows:

$$T_X = R_X \dots (a)$$

$$\therefore u_X = n m + \frac{n(n+1)}{2} T_X$$

$$T_Y = R_Y \dots (b)$$

$$\therefore u_Y = n m + \frac{m(m+1)}{2} T_Y$$

$$\therefore u = \text{Min}(u_X, u_Y) \dots (c)$$

RX: represents the sum of the ranks (ranks) of the first community.

RY: represents the total ranks (ranks) of the second community.

n: represents the number of observations of the first sample of the population.

m: represents the number of observations of the second population sample.

(u: represents the least of the two values. (Mohammed Sobhi, 2012, p. 380) (Hassan, 2011, p. 289).

Table (3) Mann-Whitney Difference Test for a Sample of Teachers and Students

Research variables	Research samples	N	(Z) Accounted	Test U value	Sig
Response strategy	Teachers opinions	61	-4.274	806.000	0.000
	Students opinions	50			
Educational services	Teachers opinions	61	-0.857	1381.000	0.391

Table (2) shows the test of differences for the means for the response strategy variable, and the test value (Mann-whitney) was equal to (806.000) and with a significance level (0.000) which is less than the accepted significance level (0.05), as well as the calculated standard Z value was (-4.274). It is greater than its tabular value at (0.00002), and this means that we take the alternative hypothesis which imposes that there are statistically significant differences between the averages of the answers of the independent variable from the teachers’ opinion as well as from the students’ opinion, and this means that there was a difference in opinion between teachers and students about the paragraphs of the strategic variable, The response in that the Corona pandemic affected the educational process and that the Ministry of Education and schools had set up a committee of specialists to maintain the educational level and in various ways and techniques.

As for the differences test for the averages for the educational services variable, the test value (Mann-whitney) was equal to (1381,000) and with a significance level of (0.391), which is greater than the accepted significance level (0.05), as well as the calculated standard Z-value (-0.857), which is greater than Its tabular value which is (0.1977), this means that we take the null hypothesis, which imposes that there are no statistically significant differences between the averages of the answers of the teachers’ opinion about the variable educational services, as well as from the students’ opinion, and this means that the views were close in opinion between teachers and students about the variable paragraphs Educational services in terms of the existence of the e-learning system and whether the school had experience in this aspect, as well as whether this aspect affected the educational level of students.

**Conclusions**

- 1.The correlation coefficients show that there is a correlation between the dimensions (organizational, guiding, planning, technical) according to the teachers’ view of the independent variable response strategy, and this means that the use of the Ministry of Education and its directorates of response strategies with its dimensions (organizational, guiding, planning, technical) will lead to the success of educational services In the face of the Corona crisis, by (58.8%) for the organizational, guiding and planning dimensions, by (37.2%) for the organizational, guiding and planning dimensions, and by (51.4%) for the planning and technical dimensions, according to the opinion of teachers in terms of studying and preparing the impact of the pandemic on education Committees of specialists and training programs for teachers to maintain the educational process, and that schools had alternative plans with the presence of the e-learning system, and that not using strategic planning would lead to failure or weakness in educational services in the face of the Corona crisis. As for the correlation coefficients for the dimensions (administrative, organizational, technical) according to the students’ view of the educational services variable, it was found that there is no statistically significant relationship between them. The school has experience in this aspect, as well as whether this aspect affected the educational level of the students.
- 2.The averages differences test for the local development strategy variable shows that there are statistically significant differences between the averages of the answers to the local development strategy variable according to the opinion of teachers as well as according to the opinion of the students and it was at the level of significance (0.00), which means

that there was a difference of opinion between teachers and students about the paragraphs of the local development strategy variable, because the Corona pandemic affected the educational process, and the Ministry of Education and schools had set up a committee of specialists to maintain the educational level and in various ways and techniques. As for the differences test for the averages with respect to the educational services variable, it was found that there are no statistically significant differences between the averages of the answers to the educational services variable according to the opinion of the teachers as well as according to the opinion of the students, and this means that the views were close in opinion between teachers and students about the paragraphs of the educational services variable in terms of The existence of the e-learning system and whether the school had experience in this aspect, as well as whether this aspect affected the educational level of the students.

3.The results indicate that developing the dimensions of the developmental strategy variable and adopting and improving them through the work of a specialized committees and alternative plans that help in the progress of the educational process which will lead to the success of educational services by (49.13%) in secondary, middle and primary schools in the face of the Corona pandemic, which affected the course of education.

### **Recommendations**

Through the results reached by the researcher, it is clear that in order to achieve the response strategy and thus achieve educational services in the required manner, educational institutions represented by the directorates of education must take into account the recommendations presented in this aspect, which give alternatives and solutions that achieve e-learning in a good and required manner:

- 1.Educational institutions should develop educational training programs on how to use e-learning platforms and programs for school affiliates, including teachers, administrators and students, as well as identify the problems and difficulties that schools face in providing e-learning requirements for the continuation of education and non-stop during the pandemic.
- 2.The Schools must develop plans and strategies and train teachers on various e-learning platforms so that the Corona pandemic does not affect the conduct of scientific lessons in schools, by setting up committees of specialists and experts to maintain the level of education during the pandemic.
- 3.The school must have a plan and strategy to develop appropriate alternatives to maintain the level of education and its continuity, as well as there must be a communication plan between the directorates of the Ministry of Education and schools in order for this strategy used in e-learning to be successful, in addition to the alternative plans, treatments and solutions developed by experts in the Ministry of Education and education directorates.
- 4.The Ministry of Education, its directorates, and its affiliated schools should take this crisis as a positive experience for the purpose of benefiting from it and the problems and solutions that have arisen from it, and directing them towards taking advanced steps in e-learning so that education be successful from a scientific and practical point of view, as well as not affecting the scientific level of students, thus E-learning should an opportunity to open up and keep pace with the development taking place in education in developed countries.
- 5.Schools provide training and educational programs for students on how to use e-learning programs in order not to affect their level of understanding the lectures and to follow up on the problems that arise when electronic lectures start.
- 6.The teachers must show flexibility in helping students to understand the scientific material when they deliver to them through e-learning, as well as there should be communication between students' parents and the school administration about e-learning during the Corona pandemic.
7. It is better that electronic lessons be given from within the classrooms of schools, provided that the classrooms are equipped with a good internet network and computers, in order to ensure the continuity of courses and lessons and their follow-up by the school administration and because this experience is new to teachers and students, thus ensuring that lessons are delivered in the correct manner and that students benefit from the e-learning experience to the possible maximum extent.

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