

# **Evaluation of the Lesson of Physical Education and Sports Sciences in Specialized Colleges through Some Functional Indicators in Light of the Corona Virus Pandemic**

**Professor: Mohammed Abdul-Ridha Kareem, Professor: Mohammed Majid  
Mohammed Salih, HibaHusseinsrayyih**

<sup>1,2,3</sup>College Of Physical Education Sport Sciences Misan University

**Emails:** [dr.mohammed@uomisan.edu.iq](mailto:dr.mohammed@uomisan.edu.iq), [admin@uomisan.edu.iq](mailto:admin@uomisan.edu.iq)

## **Abstract**

The first chapter included the introduction and the importance of the research, in which the physical education lesson and the importance of functional indicators to know the practical vocabulary to get rid of the Corona virus pandemic was discussed. The students' abilities and levels, through which it is possible to know the level of development in this aspect. The objectives of the research were to evaluate the parts of the physical education lesson through some functional indicators. The researchers assumed the following:

There are differences in the pre and post tests in favor of the post test in functional indicators and for the first and fourth stages. The fields of research were a sample of students from the Faculty of Physical Education and Sports Sciences at the University of Misan. The researchers used the closed hall and the physiology laboratory in the same college, and the research period was from 22/1/2021 to 3/21/2021. The research included field research procedures, which included the research method, sample, research tools, and its exploratory and main experiments. The research included presentation and analysis of results, through which the objectives and hypotheses of the research were achieved. It also included the conclusions and recommendations reached by the researchers through the research objectives and hypotheses.

## **Definition of research**

## **Introduction and importance of research**

The study of physical education and sports sciences, like all other scientific and human lessons, has evolved so that it has become an effective tool to achieve the purposes of modern society and has turned in a scientific and educational direction, whether in its preparation or in its educational means and methods. It achieves an important purpose to guide students and discover their various sports abilities and skills. The importance of research lies in arousing students' interest and providing opportunities to enjoy and invest all available capabilities of equipment, tools and sports arenas inside and outside the university corridors to take out the lesson of physical education and sports science and organize extra-curricular activities to achieve the goals of the academic performance curricula according to sports. The trends and

indicators required to achieve the objectives of the educational process and the importance of the subject of scientific and field research came this study.

### **Problem Search**

The physical and functional indicators are the ones through which knowledge can evaluate the efficiency of the individual. These variables are important and must be followed up to know the extent to which activities contribute to influencing the individual's internal organs to achieve the goal of the lesson of physical education and sports sciences, which is the link through which we can raise the level of individual performance and know his different capabilities. In order to create the ability to work and achieve a developed level of achievement, the percentage of this achievement should be known, and this comes through follow-up and evaluation, and because the lesson of physical education and sports science is the physical activity practiced by students, through which we can know the impact of sports activities on students' abilities and their physical and physiological levels. Through it, to know the level of development in this aspect and for the university study stage, to know the training status of students, and to know the impact of academic vocabulary on the functional aspects of students. The researchers wanted to study this aspect .

### **Research Objectives**

The research aims to evaluate the lesson of physical education and sports sciences for specialized study in colleges through some functional indicators in light of the Corona pandemic.

### **Research hypotheses: The researchers assume the following**

There are statistically significant differences in the pre and post tests for the functional indicators and for the first and fourth stages under the Corona pandemic.

### **Research Areas**

- The human field :Students of the Faculty of Physical Education and Sports Sciences at the University of Misan for the academic year 2020-2021.
- The spatial domain :The closed hall and the physiology laboratory, Faculty of Physical Education and Sports Sciences - University of Misan
- Time range :From 22/1/2021 to 3/21/2021

### **Research Methodology**

The researchers used the descriptive approach for its relevance to the nature of the research.

### **Research Sample**

The research sample was chosen by the intentional method, and it consisted of (92) students, with (46) students for the first stage and (46) students for the fourth stage, and they represent the applied sciences branch in the Faculty of Physical Education and Sports Sciences at the University of Misan for the academic year 2020-2021.

## **Means of data collection, tools and devices used in the research**

The researchers used tests, measurements, and field observation, as means of collecting research data, which are:

- Height measuring device, electronic electric Japanese made type(OSK)
- A sensitive scale for measuring body weight to the nearest 50 g, Japanese-made type(OSK)
- Stethoscope Stethoscope Japanese made.
- German-made mercury thermometer.
- China-made branded center body temperature thermometer(Safety)
- Vital capacitance device (CV)
- blood pressure measuring device Sphygmomanometer

## **Description of physical, physical and functional measurements**

### **Body measurements, including height and weight**

#### **Measurement of length**

The lengths of the test subjects were measured with a length meter. The laboratory stands on the base of the device, barefoot, resting its back on the metal stand that is perpendicular to the base of the device. After the person performing the measurement presses the special key for measurement, a small metal plate is lowered on the head of the laboratory from the metal stand, and at the same time a number appears on the device screen representing the length in centimeters.

#### **Measurement of weight**

The weight of the laboratory was measured with a sensitive scale weighing close to 50 grams, as the laboratory stands above the surface of the base of the scale while wearing only sports shorts. The reading is done after the weight indicator is completely fixed on the weight that represents the weight of the laboratory in kilograms.

### **Functional measurements**

#### **Measurement of vital capacity**

It is a device that measures several lung functions, including the diagnosis of the athlete's condition, such as these measurements (FEV1) (forced expiratory volume in one second) Both the volume of exhaled air per second are obtained (FEV1) and vital capacity (VC) It is the amount of air that an athlete exhales after inhaling the most air into the lung. The measurement of maximum expiratory pressure and inhalation MIP & MEP To test the strength of the breathing muscles of the athlete.

Inspiratory pressure force MIP- :It is the measurement of the pressure that an athlete reaches while taking an inhale from a closed tube.

Expiratory pressure force MEP- :It is the measurement of the pressure that the athlete reaches

during exhalation (with the cheeks swollen) in a closed tube.

### **Blood pressure measurement**

Blood pressure is measured with a sphygmomanometer and a stethoscope and twice before exercise (at rest) and immediately after exercise.

### **Measurement of the calculated body center temperature**

The thermometer is placed under the tongue for 3 minutes, after which it is withdrawn and the temperature is read, taking into account the addition of (0.6 ° Guyton, 1981, 886) The data is then blanked in a special form prepared for this purpose.

### **Heart rate measurement**

The measurement of the heart rate during the maximum oxygen consumption test is one of the main criteria to indicate that the laboratory has reached the maximum value of oxygen consumption. It is mediated by a scale in the form of a small clock placed near the laboratory or fixed at the top of his hand. The scale includes a lens or a photocell that senses the heartbeat in the form of a rate per minute.

## **Experiments**

### **The first reconnaissance experiment**

A first exploratory experiment was conducted on 1/22/2021 on ten students representing the first and second study stages from the research community and from non-participants within the research sample. All measurements and procedures were applied to them. The purpose of this exploratory experiment was as follows:

- Ensure the validity of the devices and tools used.
- Ensure that the work team understands the measurement methods and method of work.
- Identify the obstacles that may appear when implementing the procedures.

### **The second exploratory experiment**

The second exploratory experiment was conducted on 1/29/2021 on the same research sample and all the measurements and procedures were applied to them. The purpose of this exploratory experiment was as follows:

- Familiarity with the research sample with measuring devices.
- Avoiding the obstacles that appeared in the first reconnaissance experiment.
- Acquisition of the staff as a second practice of measurement methods and procedures for research.

### **Final Experiment**

The final experiment was conducted in two stages. The first stage was considered by the researchers as the pre-test and the second stage after eight weeks, and considered as the post

test to ensure the accuracy of the results between the first and second stages in the College of Physical Education and Sports Sciences .

### Pre-test of the research sample

The tribal tests of the research sample were conducted on 2-5/2/2021, respectively, by two days for the first stage and two days for the fourth stage, at nine o'clock in the morning. What is similar to it as much as possible when conducting dimensional measurements of the research sample ?

### Post -test of the research sample

The post tests were conducted after eight weeks, on ,2021/4/6-3 respectively ,two days for the first stage and two days for the fourth stage at nine o'clock in the morning, and the same conditions for the tribal measurements were achieved as much as possible .

### Statistical means

The researchers used the statistical program SPSS.V20)To process the research data ,the following statistical methods were extracted:

- Arithmetic mean
- standard deviation
- T-test for independent samples
- t-test for symmetrical samples

### Presentation, analysis and discussion of the research results

#### Displaying the search results

Table (1)It shows the arithmetic means, standard deviations, and the calculated and tabulated (T) value of the functional indicators after the applied section and for the pre and post tests for first-year students

level indication	sig	Values(t)calculated	The first stage (after the applied section)				Functional indicators	NO
			post test		pretest			
			p	s	p	s		
not significant	0.000	0.73	3.46	420.93	3.37	420.86	vital capacity	1
not significant	0.000	0.78	1.09	126.95	0.94	127.9	systolic blood pressure	2
D	0.000	4.09	0.89	77.28	0.75	77.09	diastolic blood pressure	3

D	0.000	3.42	0.66	36.27	0.78	36.32	body center temperature	4
D	0.000	5.75	1.33	66.88	1.04	67.09	heart rate	5

Table(2) It shows the arithmetic means, standard deviations, and the calculated and tabulated (T) value of the functional indicators after the applied section and for the pre and post tests for the fourth stage students.

level indication	sig	Values(t)calculated	Fourth stage (after the applied section)				Functional indicators	NO
			post test		pretest			
			p	s	p	s		
D	0.001	5.97	6.09	443.13	12.15	425.51	vital capacity	1
D	0.000	4.35	1.38	129.69	1.11	127.04	systolic blood pressure	2
D	0.000	5.74	1.18	77.61	0.79	77.18	diastolic blood pressure	3
D	0.000	3.38	1.11	36.56	0.91	36.41	body center temperature	4
D	0.001	3.13	1.78	67.95	1.33	67.27	heart rate	5

Table (3) It shows the arithmetic means, standard deviations, and the calculated and tabulated (T) value of the functional indicators after the applied section and for the post-tests for students of the first and fourth stages

level indication	sig	Values(t)calculated	Post-tests (after the applied section)				Functional indicators	NO
			The fourth stage		The first stage			
			p	s	p	s		
D	0.000	6.35	6.09	443.13	3.46	420.13	vital capacity	1
D	0.000	7.53	1.38	129.69	1.09	126.95	systolic blood pressure	2
D	0.000	5.55	1.18	77.61	0.79	77.18	diastolic blood pressure	3

not significant	0.000	4.07	1.11	36.56	0.76	36.27	body center temperature	4
D	0.000	4.09	1.78	67.95	1.31	66.88	heart rate	5

### Discussing the results of the research

It is clear from the tables (1.2.3) that there are differences between the pre and post measurements and for the first and fourth stages, with a small difference in the first stage, despite its significance in only three indicators. As for the fourth stage, most of them were statistically significant. When compared with the dimensional measurements, all functional indicators were statistically significant and in favor of the fourth stage students, except for the body center temperature. The researchers attribute the reason for this to the increase in the size of the heart as a result of the exercises given to students during practical lessons, and this agrees with (Volkov) in 1979: "The trained heart, which enjoys an excellent blood role, helps it not to accumulate lactic acid and obtain the necessary oxygen that can return to its normal state after Completion of physical exertion with great efficiency as well as that the exercises included in the vocabulary of the lesson plan for the fourth stage were effective and influential, which caused an increase in the pulse rate, and this is consistent with what was indicated by (Matthews Tyler) 1976, 1970 that "regular training leads to a significant increase in the pulse rate, although Exerting the field effort results in an increase in the ability of the heart to grow and expand, and in addition to the volume of cardiac thrust. The researchers attribute the reason for the statistical significance to the state of adaptation that occurred among the students of the fourth stage as a result of the repeated practical lessons carried out by the research sample that brought about the state of development in the pulse, and this is consistent with what was indicated by (Mohammed Ali Al-Qat 1999) "The educational or training curricula are measured by the extent of progress What the student or player achieves in the type of activity practiced through the functional level "Wabu Ola Ahmed Abdel-Fattah and Ibrahim Shaalan "1994 The pulse rate varies between students and according to the part of the exercise and according to their differences in the performance of movements where the pulse rate reaches a high degree of excitability in active and rapid exercises "

### Conclusions and recommendations

#### Conclusions

In light of the statistical treatments that the researchers came up with, the following was concluded:

1. There are statistically significant differences between the pre- and post-tests in favor of the post-test in the first and fourth stages.
2. There are statistically significant differences between the two post tests and in favor of the post test in the fourth stage in all functional indicators except for body temperature.
3. The effect of the physical education and sports science lesson on a functional impact on the members of the research sample.

4. Increasing the effectiveness of the exercises in the educational section to stimulate the internal organs to raise the level of performance and its dynamism.

### **Recommendations**

In light of the conclusions that the researchers came up with, the following is recommended:

1. Emphasis on increasing focus when teaching students on general and specific physical abilities because of their importance in developing functional indicators.
2. Paying attention to the functional level of students because of its impact on the adaptation of the internal organs.
3. Attempting to conduct similar research to study the effect of scientific lessons on other functional indicators .

### **References**

1. Prof. Dr. RiyadSeihoudHashem - Faculty of Physical Education and Sports Sciences - University of Misan
2. Prof. Dr. Adnan RadyFarag - Faculty of Physical Education and Sports Sciences - University of Misan
3. Prof. Dr. Hassan Jassim Hussein - Directorate of Education Misan
4. Ali Abdel MoneimBadir (on the authority of Volkov): A study of the adaptation of the circulatory and respiratory systems to the performance of physical exercise, the Supreme Council of Universities, Physical Education Sector, Scientific Conference, State of Egypt, 1986.
5. Saad Mohamed Abdel-Fattah: The effect of a program of aerobic training inside and outside the water on some physiological variables for the students of Alexandria, 1988, preparing for races in the State of Kuwait, applications theories, third issue
6. Muhammad Ali Al-Qatt: The Functions of Sports Training Members , An Applied Entrance1 , st Edition, Cairo Dar Al-Fikr Al-Arabi, 1999.
7. Abu Al-Ela, Abdel-Fattah and Ibrahim Shaalan: The Physiology of Football, Dar Al-Fikr Al-Arabi, Cairo, 1994.