

Physical Activity at Home to Optimize the Physical and Mental Health of the Liceista Students

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Abstract

This research paper presents the ways and means of implementing good body practices in times of Covid-19 in Ecuador, the same ones that the World Health Organization points out to keep the world population physically active. In addition, the purpose is to develop a proposal of activities and physical exercises through a Flipped Classroom methodology in the Physical Education sessions to optimize the physical and mental health of the students of the Naval Lyceum of Guayaquil. In this way, motor activities were applied within the weekly pedagogical file according to the physical possibilities, age and appropriate to the context "at home" of the students, where the use of educational and audiovisual technologies is combined in asynchronous sessions using Google Classroom and in synchronous sessions online by zoom to participate in motor actions online and in a directed way.

Keywords: World Health Organization; Sars-CoV-2; Physical Activity; Covid-19

Introduction

In the year 2020, the way of life of the human being changed very significantly and drastically, this is due to the new Coronavirus or Sars-CoV-2 that began in a seafood market located in the city of Wuhan in China from November 2019 (Medical Writing, 2020). Subsequently, to the aggressive expansion of infections, deaths and the lack of a cure, as well as the characteristics of the symptoms presented by people such as: fever, cough, difficulty breathing, muscle pain, among others (Palacios, Santos, Velázquez, and León, 2020), doctors revealed that within this family of "Coronavirus Sars-Cov-2" is the Covid-19 disease where people and animals are vulnerable, in the case of humans this infection affects the respiratory level determined as a normal cold or a very serious one (World Health Organization, 2020, a) [1-3].

Therefore, the World Health Organization (2020, a) determined that Covid-19 is a disease that is transmitted by droplets originating from the mouth or nose at the time of coughing, exhaling or communicating verbally, these droplets fall on surfaces and objects that are within reach of many people around them, who at the same time can manipulate and have contact with their mouth, eyes, nose and thus become infected and infect others. Due to this, Palacios, et al. (2020) explain the prevention measures exposed by the WHO such as the proper use of masks, glasses, avoiding contacts, maintaining a distance up to 2 meters, avoiding meetings or mass events, maintaining body hygiene, constantly washing hands with soap and in case any person has had contact with another person infected by Covid-19, it must perform an isolation of 14 days in order to limit a high rate of infections [2,3].

Situation and evolution of Covid-19 in the world

Despite these prevention measures, the WHO website (2020, b) exhibits the chronology of Covid-19 in the world and confirms that since December 31, 2019 the team of municipal doctors of Hubei – China reported a high rate of cases of pneumonia generated by the new coronavirus, they also communicated their sequence on January 12, 2020 and by January 13 of the same year the first one was confirmed. case of this evil in Thailand. Indeed, by January 30, 2020, the expansion of Covid-19 was confirmed in 18 countries of the world: Japan with 11 positives, Republic of Korea with 4 positives, Viet Nam with 2 positives, Singapore with 10 positives, Australia with 7 positives, Malaysia with 7 positives, Cambodia with 1 positive, Philippines with 1 positive, Thailand with 1 positive, Nepal with 1 positive, Sri Lanka with 1 positive, India with 1 positive, United States of America with 5 positives, Canada with 3 positives, France with 5 positives, Finland with 1 positive, Germany with 4 positives, United Arab Emirates with 4 positives that adding China

with 7736 positive cases on that date give a result of 7818 people with Covid-19, due to the massive and rapid spread of Covid-19 in the world, March (WHO Covid-19 Situation Report, 2020)11, 2020 in Geneva was characterized as a Pandemia (World Health Organization, 2020, c) [4-6].

At the same time, the early spread of Covid-19 generated concern in the main authorities, doctors, scientists and citizens around the world, such is the reason that Washington Post presents a proposal on the exponential curve making it very clear that it is a mathematical calculation and not a prophecy, this method consists of a simulation on the displacements of people from a population X represented by points with 3 types of colors, healthy people are white, sick people are orange and recovered people are lilac. According to this, 4 types of cases are shown that describe the impact of contagions of a population X taking measures of restriction of mobility (Stevens, 2020) [7].

Cases	Description	Simulator image
Case 1	It consists in that within a population X that moves freely, a patient has contact with everyone who approaches him and in that way infects many, also those infected to others and so progressively. This option is not appropriate and should be avoided since simultaneously all patients need health services and the entire system collapses bringing great consequences.	
Case 2	In this case, the decision is made to isolate the patients and in a specific geographical place, this is attributed a barrier called epistemological zone, the problem is that little by little the barrier is broken because it is complex to stop the spread of the disease. But at least the spread slows down.	
Case 3	It can be said that in this population measures were taken to restrict mobility, in addition to promoting citizens that they should stay at home and that at least 1 in 4 people can leave for the supply of their home.	

Case 4	It consists of increasing the restriction of movement and mobility of the population, if possible only 1 in 8 people can leave to stock up.	
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Tabla 1: Cases of exponential growth of outbreaks according to the mobility measures implemented.

Prepared by: (Rojas, 2020).

Source: [7] (Stevens, 2020).

Situation and evolution of Covid-19 in Ecuador

On the other hand, in the Ecuadorian context, the Ministry of Public Health confirmed the first case of Covid-19 on February 29, 2020 through a national press conference, it was a 70-year-old patient who arrived in the country on February 15, 2020 specifically to Guayaquil from Madrid – Spain asymptotically, the same one that resided in the city of Babahoyo province of Los Ríos (Ecuavisa, 2020). Subsequently, the health authorities took control, monitoring and isolation measures through epistemological fences applying the method of case 2 of Washington Post that Stevens (2020) mentions and also in those 177 people who had contact with the first case of contagion (Andramuño, 2020). In this way, on March 17, 2020, President Lenin Moreno Garcés decreed the state of Health Emergency throughout the Ecuadorian territory according to the newspaper El Comercio (2020, a) and for that moment the country presented an increase in Covid-19 in 6 provinces with a total of 58 positive cases and 2 deceased people (Ministry of Public Health of Ecuador, 2020) [7-11].

In reference to the above, despite the fact that the executive presented Decree No. 1017 (2020) where the state of emergency is

declared throughout Ecuador, and restriction measures were taken from 9:00 p.m. to 5:00 p.m. with the exception of the province of Guayas, which is the epicenter of this pandemic in the country, leaving the schedule from 4:00 p.m. to 5:00 p.m., but on March 25, 2020, new movement restriction measures were determined throughout the country applying case 3 of Washington Post that Stevens mentions (2020) to slow the spread of Covid-19, with this reform the restriction schedules go from 2:00 p.m. to 5:00 a.m. except for medical personnel, armed forces, cleaning, food services to supply markets (El Comercio, 2020, b). These measures consist of the limitations of free land, sea and air vehicular traffic, suspension of all mass activity, face-to-face suspension of private and public working days in various sales services, education, among others and pass to the modality of telework or online services. But every week the cases of Covid-19 increased considerably and 2,302 positives and 79 deaths were recorded on March 31, 2020 (see Figure 1), In addition, 7,858 positive cases and 388 deaths were registered on April 15, on May 15 these cases increased and 31,467 positives and 2,594 deaths were obtained. Likewise, for May 30, the result was 39,098 positives and 3,358 deaths (see table 2), all from the same year [7,12-14] (Covid-19 Ecuador, 2020).

Fechas	29-feb.-20	15-mar.-20	31-mar.-20	15-abr.-20	30-abr.-20	15-may.-20	31-may.-20
Infected	1	37	2302	7858	24934	31467	39098
Deceased	0	2	79	388	883	2594	3358
Recovered	0	0	58	780	1558	3433	3900

Table 2: Statistical data of infections by fortnights corresponding to the months of March and April 2020.

Prepared by: (Rojas, 2020).

Fuentes: (Covid-19 Ecuador, 2020); (The Universe, 2020) and (Scoops, 2020) [14,16,17].

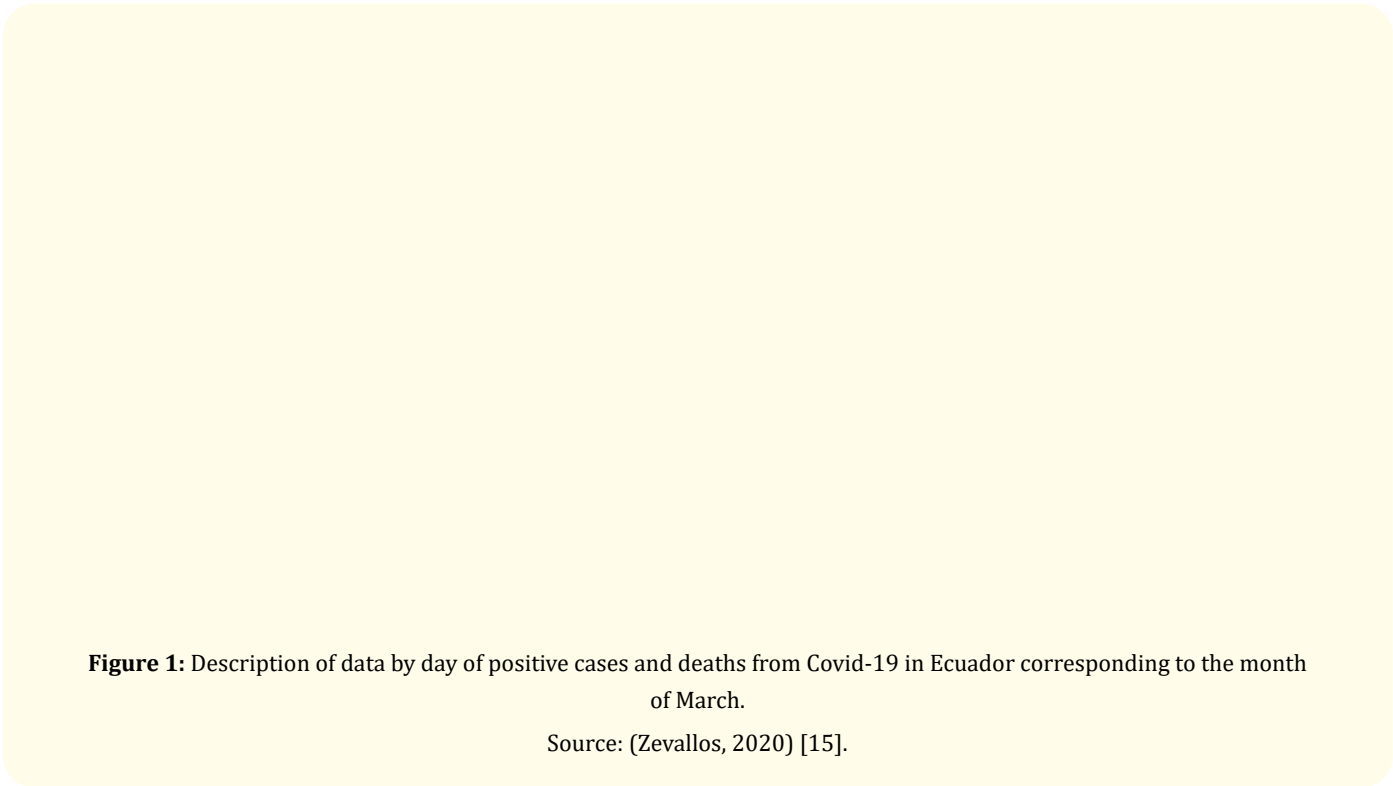


Figure 1: Description of data by day of positive cases and deaths from Covid-19 in Ecuador corresponding to the month of March.
Source: (Zevallos, 2020) [15].

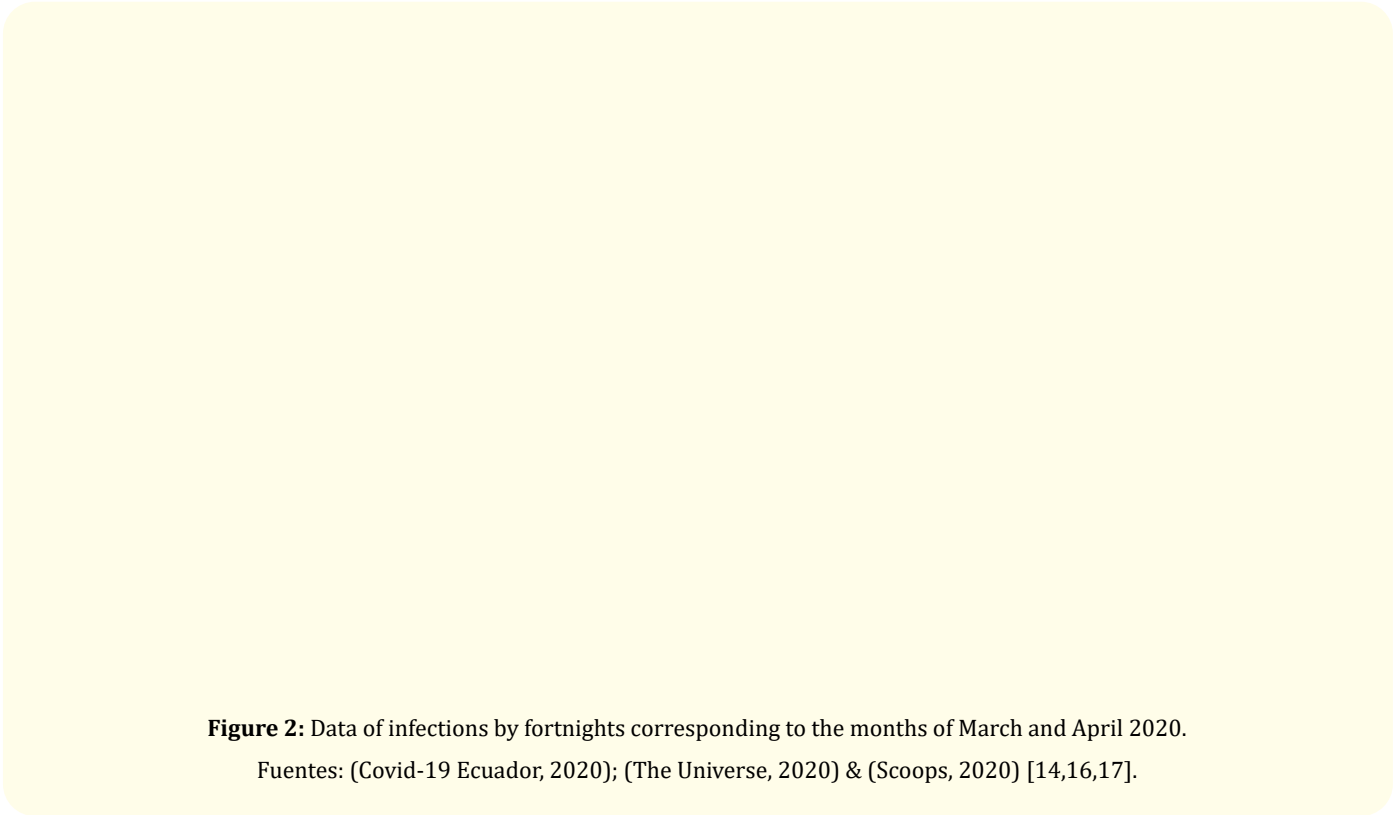


Figure 2: Data of infections by fortnights corresponding to the months of March and April 2020.
Fuentes: (Covid-19 Ecuador, 2020); (The Universe, 2020) & (Scoops, 2020) [14,16,17].

Impact of Covid-19 on the world

With the background of Covid-19 presented in this study and the restriction measures taken by the authorities of different countries as well as Ecuador, the following are the consequences of Covid-19 at the social, economic, labor, health, psychosocial or areas of life of the human being Flores (2020) and physical [18].

Social level

One of the problems that remain in world society and that was presented with more force in 1980 is inequality for economic reasons between populations, to this is added the problem of Covid-19 that at the time of infection, people must survive and face life according to their income. Although this evil does not see economic condition and we are all exposed, in this case they directly and indirectly affect the social and economic field producing a domino effect (United Nations, 2020) [19].

Economic level

For Jones, Brown and Palumbo (2020) explain in a news on the BBC News website about the great economic consequences produced by Covid-19 in the world, this impact is expressed in statistical data of the markets and businesses that affect the investment to individual savings accounts and pensions [20].

Guy	Description	Indicator
Stock market	Dow Jones	-31,1%
	FTSE	-34,1%
	Nikkei	-28,7%
Flight bookings from the USA to all regions	Pacific	-98,1%
	Europe	-31,9%
	Africa/Middle East	-22,6%
	America	-14,5%
Restaurant reservations in various parts of the world	United Kingdom	-82,0%
	USA	-84,0%
	Ireland	-86,0%
	Germany	-90,0%
	Canada	-94,0%
Car Sales	China	-92,0%
Gold	Fall in the value of gold	From \$1650 to \$1476
Petroleum	Value of oil	From \$ 70.00 to \$ 26.22

OECD Provisional Economic Outlook on GDP Projection to March 2020 for 2019	China	Below 5%
	Global	Below 3%
	EEUU	Below 2%
	United Kingdom	Below 1%
	French	
	Euro area	
	Japan	
	Germany	
	Italy	

Table 3: Economic impact of Covid-19.

Prepared by: (Rojas, 2020)

Source: (Jones, Brown, and Palumbo, 2020) [20].

According to the International Labour Organization (2020), it explains that due to this global threat, unemployment can increase in the world and presents data according to the income level of each country [21].

Figure 3: Increase in unemployment by country income level.

Source: (International Labour Organization, 2020) [21].

Level of health

The effects of Covid-19 on health is still under study, the behavior of its symptoms are variable, in the country of its origin China describe the following: fever with 87.9% and is the highest percentage of other symptoms, followed by dry cough with 67%, asthenia with 38.1%, expectoration with 33.4%, dyspnea with 18.6%, sore throat with 13.9%, headache 13.6%, among others; In the case of European countries, in Germany: fever with 47% and is the one with the highest percentage of symptoms presented by those infected; in second place is dry cough with 25%, sore throat 16%, asthenia 6% and pain with 5%; in Spain fever with 68.7% is

also the largest symptom followed by very little cough with 68.1%, sore throat with 24.1%, dyspnea 31%, chills with 27%, vomiting 6%, diarrhea with 14% and other respiratory symptoms with 4.5% (Spanish Ministry of Health, 2020) [22].

In the case of Latin America, according (2020) to Ryan the symptoms in addition to shortness of breath and dry cough, add 2 more signs of this list: fever, body tremor and chills, headache, throat, head, loss of taste and smell. Similarly, El Comercio (2020, c) in its informative website indicates that the symptoms in Ecuador are similar: cough, fever and dyspnea, but others are presented: diarrhea, blood clotting, extreme weakness and skin irritation. In addition, other diseases such as dengue, measles that recently emerged and other respiratory diseases (Rodríguez, *et al.* 2020) [23-25] are added.

Psychosocial level and mental health

According to the Pan American Health Organization (2020) affirms that the WHO of Mental Health due to the outbreak of Covid-19 in the world is causing stress in the population, it also considers the following aspects to reduce the impact: avoid anguish and anxiety by reducing the time in written information, videos and audios about negative news; it is essential not to listen or share information from unreliable sources; collect stories, videos and images with positive, encouraging and hopeful content about the environment, especially of a family member or a close friend who recovered from this disease [26].

One of the main proposals are those that are intended for children to avoid feelings of sadness and fear, these should focus on playful, creative and artistic activities that are positive to generate expressions of joy and enjoyment in a safe environment. In this same sense, children should not be separated from their parents and the people who make them feel safe, because they are always expectant to the emotions of adults that basically influence their emotional state. During isolation, in the general population it is important to schedule and organize daily activities to reduce stress, among them are healthy and relaxing ones such as: perform Activity and/or Physical Exercise, sleep as necessary and eat healthy (Pan American Health Organization, 2020, p. 6) [27].

Physical level

Due to the restrictions of mobilization in Ecuador and the world to mitigate the spread of Covid-19, massive and individual partici-

pations in the open air were limited and among them are the Physical, Sports and Recreational Activities that were carried out daily in parks, sports centers, clubs and gyms. With this reference, despite this safety decision such as staying at home, negative and involuntary effects are generated to replace some motor activity with sedentary behaviors, such as: spending more time lying down, sitting and not moving, as well as when using digital media at all times to cover most of the basic needs. If anything, for Chen P. (2020) states that people should perform at least 30 minutes a day of Physical Activity with moderate intensity and 2 days of 20 minutes with vigorous intensity, as a measure that helps maintain physical condition, under this condition and with the obligation of confinement to avoid the increase in infections by Covid-19, activities and physical exercises are proposed in the online Physical Education space [28].

Methodology

The present research is of mixed qualitative approach (which-quant) according to what Hernández, Fernández and Del Pilar express, that (2014) is, with greater qualitative accentuation under the design of the grounded theory that Cuñat explains (2007), where information is obtained from different studies, investigations and theoretical supports to elaborate a new and contextualized one. Quantitatively, information is acquired on the statistical results of the survey applied to 45 teachers specialized in Physical Education through a Google Drive form, to perform a descriptive analysis on the positions of teachers about the possibilities to provide a Session of Physical Education in times of Covid-19, using Information and Communication Technologies (Rojas, 2020) [29-31].

Results

The sample was obtained by motivating the Physical Education professionals who participated in the first online conversation, which was organized by the Physical Education area of the Naval Lyceum of Guayaquil through the Zoom platform. In this way, following the exposition of López, P. who (1994, p. 69) quotes Pineda who mentions the obtaining of the non-probabilistic sample and that it is taken from the same unit that is at the moment [32].

In this sense, the 45 Physical Education professionals are taken for their participation in the digital survey designed in the Google Drive form with structured and semi-structured questions about Physical Education in times of Covid-19 (Rojas, 2020). Therefore,

the age range was determined and the largest number is represented with 33.3% and is attributed to teachers over 50 years of age, followed by 24.4% to teachers with age range of 41 to 50 years, as shown in table 4 of Physical Education teachers by age [31].

In other results, question No. 3 shows that 77.8% of teachers did use ICT in the Physical Education class in the past school periods, but it is observed that despite being a small group of those in the age range of 20 to 30 years, all used digital technologies. On the other hand, in the age ranges of 31 to 40 and 41 to 50 years they present the same result with 4.4% where they did not use ICT, as well as in the age range over 50 years despite the fact that the sample is larger, 5 of them, that is, 11.1% did not use them (see Table 5).

Age range	Quantity	%
From 20 to 30 years old	5	11,1%
From 31 to 40 years old	14	31,1%
From 41 to 50 years old	11	24,4%
Over 50 years old	15	33,3%
Total	45	100,0%

Table 4: Age range of Physical Education teachers.

Prepared by: (Rojas, 2020)

Variables	Quantity	Question 3			%		
		Yes	No	No	Yes	No	No
From 20 to 30 years	5	5	0		11,1%	0,0%	
From 31 to 40 years old	14	11	2	1	24,4%	4,4%	2,2%
From 41 to 50 years old	11	9	2		20,0%	4,4%	
Over 50 years old	15	10	5		22,2%	11,1%	
Total	45	35	9	1	77,8%	20,0%	2,2%
		45			100,0%		

Table 5: Use of ICT in a Physical Education class in past school periods.

Prepared by: (Rojas, 2020).

In the case of question No. 14, it raises 5 answer options of what the Physical Education class would be like in times of Covid-19, and

it is evident that most of the percentage is for option 4 with 42.2% in general.

Variables	Question Options 14				
	1	2	3	4	5
From 20 to 30 years old	2,2%	0,0%	2,2%	6,7%	0,0%
From 31 to 40 years old	2,2%	6,7%	2,2%	17,8%	2,2%
From 41 to 50 years old	6,7%	2,2%	4,4%	11,1%	0,0%
Over 50 years old	13,3%	6,7%	4,4%	6,7%	2,2%
Total	24,4%	15,6%	13,3%	42,2%	4,4%
	100,0%				

Table 6: Overall results by options in question No. 14.

Prepared by: (Rojas, 2020)

However, the results by age range show that 17.8% of teachers aged 31 to 40 will carry out their classes through a virtual classroom and video conference (Zoom, WhatsApp, Skype), so it is a mediator of the class and indicates what should be done in each activity, in this case it is not obligatory for all students to connect because the class is recorded and they can apply it at another time, in the range of teachers over 50 years of age, 13.3%, will apply an adjustment in the curricular block according to the level of assimilation of the student (age/course) and concatenate with the moment that is being lived in the Country of Covid-19, using video

conference (with recording) and virtual platforms, so that students can access them when they can. In third place is for the range of 31 to 40 and over 50 years with 6.7% who express create a classroom or virtual platform (Classroom, Blog, Edmodo) and that students interact in it when they can contact, that way they will learn the contents of the EF curriculum. In fourth place are the age ranges of 41 to 50 and over 50 years with 4.4% where teachers will work uploading videos on a virtual platform where all the actions are shown, so students can observe and perform these actions at the time they can access.

No.	Answer options to question No. 14	Higher range %	Age	Mid-range %	Age
1	Accommodate a curricular block according to the level of assimilation of the student (age/course) and concatenate with the moment that is being lived in the Country of Covid-19 using video conference (with recording) and virtual platforms, so that students can access them when they can	13,3%	Over 50 years old	6,7%	From 41 to 50 years old
2	Create a classroom or virtual platform (Classroom, Blog, Edmodo) and that students interact in it when they can contact each other, in this way they will learn the contents of the EF curriculum	6,7%	From 31 to 40 years old	6,7%	Over 50 years old
3	I upload a video on a virtual platform where all the actions are shown, so students can observe and perform these actions at the time they can access	4,4%	De 41 a 50 años	4,4%	Over 50 years old
4	Through a virtual classroom and video conference (Zoom, WhatsApp, Skype), so I am a mediator of the class and indicate what should be done in each activity, in this case it is not obligatory for all students to connect because the class is recorded and they can apply it at another time	17,8%	From 31 to 40 years old	11,1%	From 41 to 50 years old
5	No	2,2%		2,2%	Over 50 years old

Table 7: Main results by options and age range of question No. 14.

Prepared by: (Rojas, 2020)

In the case of question No. 16, which of these procedures do you think is appropriate for when you teach the Physical Education

class from home? Where it presents 4 answer options, and option 2 has 62.2% being the largest of all the others.

Variables	Options in Question No. 16			
	1	2	3	4
From 20 to 30 years old	2,2%	8,9%	0,0%	0,0%
From 31 to 40 years old	8,9%	13,3%	4,4%	4,4%
From 41 to 50 years old	4,4%	17,8%	2,2%	0,0%

Over 50 years old	6,7%	22,2%	2,2%	2,2%
Total	22,2%	62,2%	8,9%	6,7%
100,0%				

Table 8: Overall results of question No. 16.

Prepared by: (Rojas, 2020)

According to table 9, it can be observed that 22.2% in teachers over 50 years of age, 17.8% from 41 to 50 years old and 13.3 from 31 to 40 years old, prefer to provide a synchronous and asynchronous mixed session using 50% video call and recorded movement,

25% cognitive and 25% attitudinal. With regard to this, Physical Education teachers want to carry out their sessions focused more on motor activities using digital media for their control, that can be evidenced because only 8.9% want asynchronous sessions.

No.	Options	%	Age range	Session at Home
1	100% motion directed by video call and recorded: everything is learned from movement and improves self-esteem	8,9%	From 31 to 40 years old	Synchronous
2	50% motion directed by video call and recorded, 25% cognitive (I learn concepts and theoretical data) and 25% attitudinal (Participate, cooperate, etc..)	22,2%	Over 50 years old	Synchronous and Asynchronous
3	100% cognitive: I learn from the virtual platform and apply it in home	4,4%	From 31 to 40 years old	Asynchronous
4	No	4,4%	From 31 to 40 years old	

Table 9: Main results by options and age range of question No. 16.

Prepared by: (Rojas, 2020).

On the other hand, the National Institute of Statistics and Census (2018) describes a slight increase of 24.2% in the acquisition of laptops, a decrease of 24.5% in the possession of desktop computers is observed and it remains with 11.2% in both. With regard to internet access, there is a slight increase of 46.6% in urban terms and remains with 37.2% at the national level and 16.1% at the rural level, one of the most relevant data is that 92% of the Ecuadorian population from 5 years onwards has a smart phone including social networks (page 35). From 2019 to January 2020, it was determined that 89.3% of the Ecuadorian population has cell lines, 79.0% have access to the internet, 74.5% of them have social networks and 65.9% use prepaid mobile phones [33,34] (Del-Alcazar, 2020).

Educational proposal in Ecuador

For her part, the Minister of Education Creamer M. (2020) due to this health emergency measure ordered by the executive, maintains that classes should be suspended until second notice, the same that was later postponed to June 1 of this year in the Costa-Galapagos region in "Educating from Home" mode (Creamer M., 2020, b). Therefore, since the date that teachers had to re-enter their working days, many ways and means were generated to propose classes from home with the help of digital technologies, for this the higher education authorities motivated all public, tax and private institutions to strengthen their performance in the man-

agement of educational technologies through free (GK City, 2020) courses. In this sense, the Ministry of Education implemented a Compacted Curriculum (2020) due to the Covid-19 emergency for the Costa region, at the same time proposing to continue with the learning process of students contextualizing with the possibilities they present in their homes through educational technologies and with a Methodology of Project-Based Learning (PBL), which includes emotional support in each of the sessions through a Plan Let's Learn Together at Home (Covid-19 Educational Plan, 2020) [35-39].

Figure 4: Educational proposal subject to the Compact Curriculum of the Ministry of Education of Ecuador.

Physical activity plan through physical education

In the Liceo Naval Educational Unit of Guayaquil, until June 2020, the general secretariat registers 3172 students in the Educalinks system, which is the digital information system of the institution, in which 100% have internet access in their homes, but 53% of Liceístas families use more than 3 people the internet for work and academic activities. With this reference, the Liceo Naval adopted the asynchronous educational modality using the Educalinks platform as an informative-communicative channel and the synchronous session using the Zoom platform under a schedule of 35 minutes per session. Next, the Physical Education area of the Naval Lyceum of Guayaquil proposes to use the educational platform of Google Classroom.

On the other hand, the educational methodology of Flipped Classroom is presented as an effective and precise means that through educational technologies, previous knowledge is acquired with the audiovisual digital resources of the academic contents to be treated. The term Flipped Classroom was adopted by Bergmann

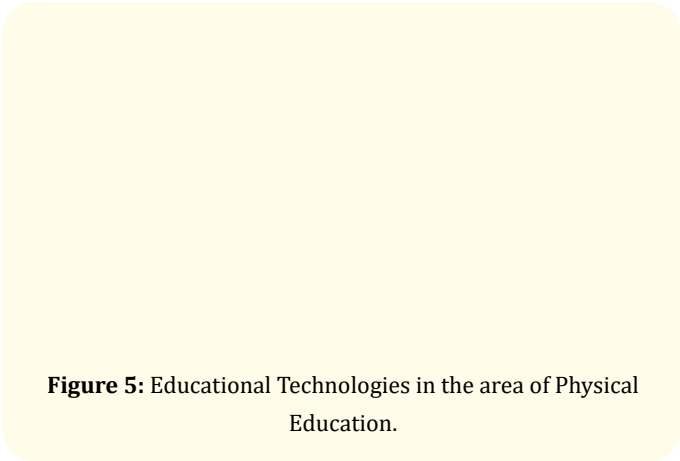


Figure 5: Educational Technologies in the area of Physical Education.

and Sams (2012) cited by Gómez (2020), both devised to make and send videos of their classes to help students who did not attend, because of this they experienced that this method facilitates students in acquiring their own knowledge when applying both processes (Ferriz, Sebastia, and Garcia, 2017) [40,41].

Method	Activity (students)	Resources
Flipped Classroom Inverted Class	Observe didactic videos of the teacher and short readings on the subject treated from home using the educational platform Classroom and Youtube: https://www.youtube.com/channel/UCx2TaRWFa7hNxxSiUeFrDwQ	Aula virtual educational (Google Classrooms) Informative and communicative platforms (Zoom and Educalinks) Office tools (Word, PowerPoints, Excel) to share experiences of the activity carried out.
Participatory (response - stimulus)	Apply many more motor actions than Digital	
Cooperative - collaborative	Engage with the family synchronously (live online) and asynchronously (make short videos or TikTok))	
Participation - action (active)	Procedural motor actions 80%	
	Affective and Cognitive 20%	
Reinforcement and Feedback	At the end of the students' motor activities (recovery/stretching), reinforce the topics discussed. Similarly in the next session in the Introduction phase	
Continuous control (formative)	Detail the participation of the initial, main, and final phases; and outside it (Tasks)	

Table 10: Methods, activities and resources to use in Physical Education sessions.
Prepared by: (Rojas, 2020).

In this way, the motor actions focused on activities and physical exercises per week are presented within the weekly pedagogical

file of Physical Education, the same ones that are sent to students and parents on the Educalinks platform.

No	Contents	Duration (week) 1 1-jun.-20 5-jun.-20	June				July			
			2	3	4	5	6	7	8	
			8-jun.-20	15-jun.-20	22-jun.-20	29-jun.-20	6-jul.-20	13-jul.-20	20-jul.-20	
			12-jun.-20	19-jun.-20	26-jun.-20	3-jul.-20	10-jul.-20	17-jul.-20	24-jul.-20	
1	Covid-19 Educational Plan	ABP	6	X	X	X	X	X	X	X
2	Compact Curriculum		3			X	X	X	X	X
3	Plan Curricular Anual		3			X	X	X	X	X
4	Physical Education Proposal		6	X	X	X	X	X	X	X
	Physical activity		4	X	X		X		X	X
	Playful Practices		4	X	X		X		X	X
	Physical Exercises		3			X		X		X
	Calisthenics		3			X		X		X

Table 11: Approach to physical activities and exercises within Physical Education.

Prepared by: (Rojas, 2020).

Physical Education Pedagogical File			
Teacher:	Teacher's name	Course/ Parallel:	III High school C, E, F
Curricular objective:	OG. EF.1. Participate autonomously in various body practices, having knowledge (body, conceptual, emotional, motor among others) that allow you to do so in a healthy, safe and pleasant way throughout your life (Ecuadorian Physical Education Curriculum, 2016).		
Objective of the educational plan Let's learn together at home	Understand that cooperative work, based on effective communication and the exercise of rights and duties based on the personal and common good, favors the construction of skills for a good family, community, social coexistence and with the natural environment (Educational Plan Let's Learn Together at Home week 5, 2020) [42].		
Topics	Psychomotor games		
	Diving with the senses with calisthenics exercises		

Table 12: Example of pedagogical file corresponding to weeks 4 and 5.**Activities****Week 4 from June 22 to 26**

Activity 7: Practical activity at Home (asynchronous):

Watch the following video found in Google Classroom and do the following:

- Search for materials in your HOUSE Sheets of paper from a notebook from last year or folder; pencils or colored markers and tape.
- According to the video, make drawings on paper any 2 hands and 2 feet.

- Also draw many variants, on a paper left hand with right foot, another only the right foot, crossed feet, among others.
- Stick them on the floor with tape, you can stick between 2 to 4 sheets per row until you reach 3 meters.
- Participate individually and with a relative, you must have evidence of your activity by filling in the activity sheet and filming a short video.

Photos of the videos

Figure 6: Interactive video on the contents of playful practices in Physical Education asynchronous session.

Figure 7: Interactive video on playful practices in Physical Education asynchronous session.

Week 5 from 29 June to 3 July

Activity 8

Watch the following video found in Google Classroom and develop the following.

Practical activity (synchronous)

- Perform a warm-up using the 3 phases.
- Perform 2 or 3 sets of flat abdomen (moderate effort).
- Perform 2 or 3 sets of elbow push-ups (moderate effort).
- Perform 2 or 3 sets of lower abdomen (moderate effort).
- Describe your reflection on the activity.

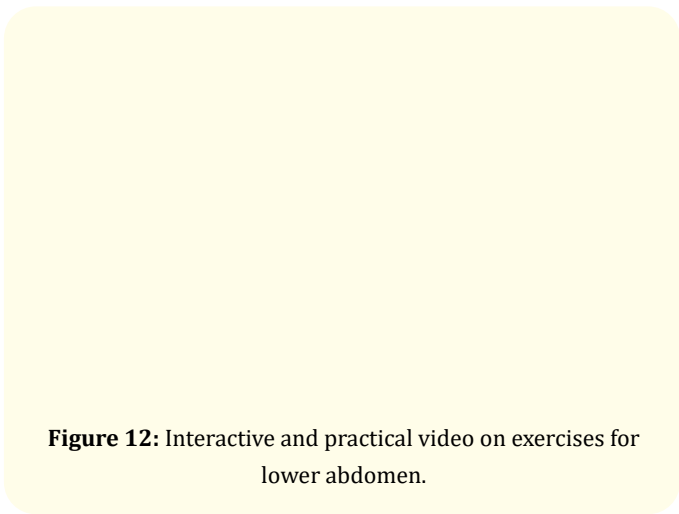
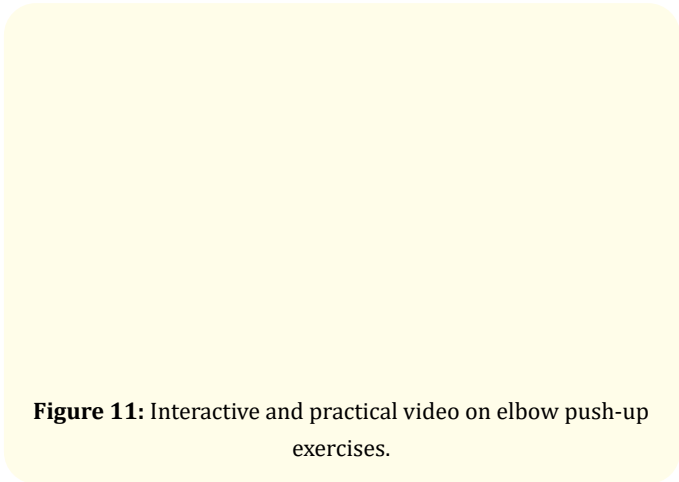
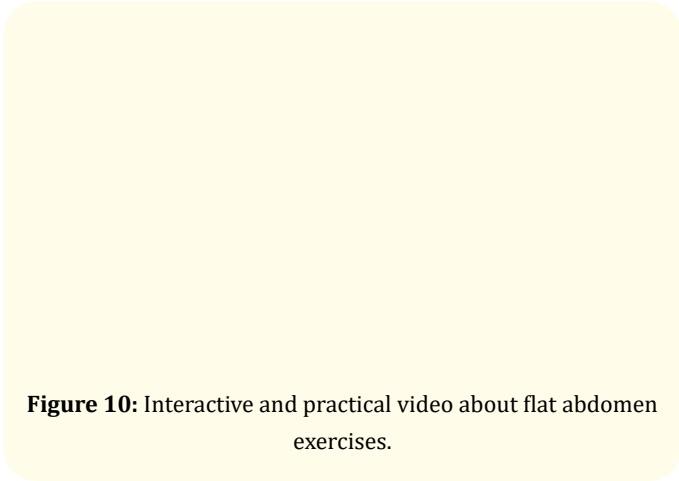
Written activity (evidence)

- Then, once all your warm-up routines and warm-up exercises are finished, fill this box in a Word sheet or notebook according to the reflections they indicate and according to your possibilities of effort.

Photo of the interactive videos

Figure 8: Interactive and explanatory video (voice included) on the contents of calisthenics.

Figure 9: Interactive and practical video on the phases of heating.



Materials What will I use?	Activity 7 Sheets of paper from a notebook from last year or folder. Pencils or colored markers. Tape. Activity 8 You don't need materials, you just need to be with comfortable clothes and a space to exercise. It is optional to place a small mat or blanket on the floor to perform some of the exercises.
Remarks:	The activities you are doing in Classroom must be archived in a physical or digital portfolio saved.-All activity sent in Physical Education must be done in the pedagogical hours designated by the institution according to the day, time and parallel.-Perform these activities in your HOUSE.-All material you should look for is from CASA do not leave it.-Remember to maintain hygiene and personal care.-Do not forget to locate at the end of each week the activity "I COMMIT AT HOME" in your notebook or carpeta write your commitment.
References:	https://recursos2.educacion.gob.ec/wp-content/uploads/2020/06/UNSC_FP_S5_REV_sbach_20200618.pdf https://www.efdeportes.com/efd108/el-calentamiento-tipos-y-fases.htm#:~:text=Calistenia%3A%20ejercicios%20din%C3%A1micos%20que%20producen,en%20el%20deporte%20en%20cuesti%C3%B3n.https://www.youtube.com/watch?v=_0kLjJymA4U

Table a

Conclusions

With this applied study, it is demonstrated that many of the contents obtained from research on physical activities and exercises are of great benefit in physical and mental health, some of the authors point out how important it is to apply them during confinement due to Covid-19. In this sense, the motor actions within the weekly pedagogical file in the subject of Physical Education are presented through the Flipped Classroom methodology, which is

appropriate and pertinent to the moment that is being lived in the world by the use of digital technologies, since through the pedagogical schedule that the educational institution established access is had to the majority of the student population and relatives of the Lyceum Naval.

Finally, due to the results of connectivity in Ecuador and the Liceísta educational community, as well as the management of ICTs of the Physical Education teaching staff, synchronous sessions were established online by zoom to perform the motor actions live and in a directed way with the students who can connect, in the same way in the asynchronous sessions with Classroom through didactic videos recorded by the teachers and attaching the sessions synchronous recorded so that everyone has access to academic information.

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