

Activities for teaching Physical Education through social networks in emergency situations

Abstract

The COVID-19 pandemic caused changes that directly and indirectly affected the teaching-learning process of Physical Education. In the current context, it is necessary for Physical Education teachers to look for alternatives that guarantee compliance with the contents in a creative and motivating way, considering the potential of social networks in emergency situations. The objective of the research was to propose activities to encourage the use of social networks as an alternative in the teaching of Physical Education in emergency situations for different reasons. The study was carried out with two populations, one of students and the other of Physical Education teachers. Research methods and techniques were used such as: analytical-synthetic, inductive-deductive, observation, interviews, questionnaires, user criteria and statistical-mathematical. They made it possible to obtain the necessary information to carry out the diagnosis and determine the activities that make up the proposal. The results offered in this research are the proposal of activities for the teaching-learning of Physical Education in emergency situations through social networks, as well as the methodological guidelines for their implementation. Introductory users make value judgments in favor of the proposal regarding its social usefulness and real possibility of being implemented.

Keywords: Physical Education; activities; emergency; social networks.

Introduction

Since March 11, 2020, the World Health Organization (WHO) declared a global pandemic situation due to the new coronavirus (COVID-19). Authorities from several countries present a series of measures to reduce the number of infected people. In Angola, at the top of the recommendations is social isolation. Avoiding contact with other people is considered the main way to contain the spread of the virus. On the other hand, one of the measures to control the spread in this region was the closure of schools.

The above led the Ministry of Education and Social Communication to sign an agreement valid for one year, for the transmission of classes on public media. But the teleclasses

broadcast by the Public Television of Angola and the audio classes broadcast by the National Radio of Angola, from Monday to Friday, did not include the subject of Physical Education. Hence the need for new proposals that guarantee its treatment; in this sense, information technologies and social networks play a fundamental role.

Similarly, Valdivia, S., Quintero, L.A., Banguela, S., Ramos, G and Entensa, SG (2021) point out that due to the epidemiological situation at that time, it is necessary to replace the outdoor physical activities carried out in the grandparents' circles, with physical activity and training at home, according to the health condition and level of conditioning of each one and they propose exercises at home.

According to Barrios (2014), technology must be treated in terms of opportunities for the future of young people, and for this it is necessary to know the real influence and impact that it is having on the lives of adolescents, as well as its positive impact without neglecting or fail to point out the dangers that, as in many other topics, appear when going from their use to their abuse, elements with which they are harmonized and are addressed in this investigation.

As stated by Hernández et al. (2017) social networks are structures in which different groups maintain sentimental, friendly or work relationships in the context of web 2.0, a concept that is assumed in this research, since it covers essential aspects of the current use of technologies. In the educational field, Cabero et al. (2016) affirm that social networks have been incorporated into education as tools that advance towards communicative learning and collaboration environments, whose application has been growing exponentially.

Social networks, arising from technological development, have permeated the educational scene through the incursion of technologies and tools that enrich and strengthen academic training processes. In this way, they emerge as useful innovations for higher education (Chacón and Limas, 2019), a result of the technological revolution typical of the digital era in the 21st century.

There is consensus among the cited authors that social networks can be useful not only for professionals and companies, but also constitute an interesting tool for students, because they allow them to work in groups; Above all, those who have difficulties

coordinating meetings with colleagues to do some academic or institutional work or participate in social activities have an unprecedented option on social networks.

Authors such as Barrios (2014), López (2017), Hernández et al., (2017), Chacón and Limas (2019), Limas and Vargas (2020) investigate the advantages and disadvantages of Internet use by adolescents and young people, the role of educators and families in guiding their appropriate use, however, they do not explore the potential of using these networks as an alternative in the teaching of Physical Education.

These digital technologies then bring important opportunities associated with academic processes; hence the value of integrating them into the educational context, obviously according to the context and type of academic activity to be developed. (López, 2017)

At a global level, Information and Communications Technologies have expanded the transmission of information and knowledge, promoting new educational strategies, in which the central role lies in the student and that of the teacher becomes somewhat less active. (Comboza, et. al. 2021)

At the Albino Private Medium Technical Health Institute (South) Luanda de Cazenga, during the state of emergency, public calamity situation, and the restart of face-to-face teaching, the activities were not designed to address the contents of the Physical Education, the use of social networks was not conceived to address the treatment of these contents, the teachers did not look for alternatives for their students, from home, to work on some of the contents of this subject outside the context of the school, limitations that justify the need and relevance of this research.

In this sense, the general objective of this research is: to propose activities to encourage the use of social networks as an alternative in the teaching of Physical Education in emergency situations for different reasons.

The importance of the work lies in the fact that it offers activities that guarantee continuity in the teaching of Physical Education in emergency situations, through social networks, guaranteeing the treatment of these contents from home, with the participation of families and minimizing health effects due to prolonged periods of inactivity.

Materials and methods

The study was carried out in a secondary education institution, at the secondary level of the technical-vocational education subsystem of Angola, at the Albino Private Secondary Technical Health Institute (South), Luanda de Cazenga.

The selection of the sample is carried out according to the type of study, the objectives of the research and the interests of the researchers. In this research, we work with two populations, a first composed of 68 students from the 11th grade of the aforementioned institute, to verify the current situation of the use of social networks in the teaching of Physical Education in emergency situations, as well as the media and resources available for their use, and a second population that is made up of the six Physical Education teachers who teach the subject.

From the first population of 110th grade students, we work with a sample of 24 students. The type of sampling used is intentional non-probabilistic, taking into account the interest expressed in participating in the research, motivated by its objective and by having the essential resources required. The average age of the selected sample is 18 years, of which 21 are female and three are male. The sample selection criteria were the following:

1. Present as a group an excellent record of attendance and active participation in Physical Education activities,
2. Get high grades on evaluations,
3. And show interest in participating in the study.

We are working with a third sample that is made up of ten introductory users who will be direct beneficiaries of the proposal. They are Physical Education teachers from different educational institutions in Cazenga, with an average of 5 years of experience. They were selected based on the following criteria:

Be a Physical Education teacher in the 1st or 2nd cycle of general secondary education and technical-vocational secondary education.

- Have at least 2 years of experience in the subject of study.
- Be a user and knowledgeable about social networks.
- Have the possibility of using social networks as an alternative in teaching this subject.
- Show interest in participating in research.

Different methods and techniques of scientific research are used in correspondence with the different stages through which the research goes, the contributions of Estévez et al are assumed. (2006):

- First stage: Diagnosis of the current situation of the use of social networks in the teaching of Physical Education in emergency situations and knowing the resources and means available to the students of the 11th class to take on this challenge.

- Second stage: Determination of the activities that make up the proposal to encourage the use of social networks as an alternative in the teaching of Physical Education.
- Third stage: Assessment expressed by users in relation to the social utility and real possibility of implementing the proposed activities.

Empirical methods:

Survey: conducted with Physical Education teachers and 11th grade students, to find out in the case of the first whether the teacher encourages the use of social networks as an alternative in teaching Physical Education in emergency situations and in the student survey Check if they use social networks as an alternative in learning this subject.

Participant observation: the social networks most used by the students under investigation were observed online.

Document analysis: used to determine if there are guidelines for teaching Physical Education through social networks in emergency and isolation situations for different reasons.

User criterion: with the objective of knowing the opinions of subjects who become users or direct beneficiaries of the proposal.

Mathematical statistical methods were used to process the information obtained from the surveys and observations, specifically the percentage calculation or empirical distribution of frequencies.

Results and discussion

Document analysis results

The analysis of documents revealed that the Physical Education teacher has an updated lesson plan. Furthermore, the 11th grade Physical Education Programs of the National Institute for Research and Development of Education (NIRDE, 2013) do not include the use of social networks as an alternative in teaching Physical Education in emergency situations.

Nor is it planned to use activities for the teaching-learning of Physical Education through alternative means of social networks in the home context. Consequently, no attention is paid to individual differences in the teaching-learning process of the subject through the use of social networks, since it is not foreseen. Element that corroborates the relevance of this investigation.

Results of the analysis of the survey carried out with teachers

Regarding the first question, 100% consider that social networks, as in other subjects, can be used in the teaching of Physical Education, but do not justify their answer. Regarding the use of social networks as an alternative for teaching this subject in emergency situations, their use is not planned in their classes since it is not oriented in the program or by the directors, and these are eminently practical in the context. from school.

The computer resources that the teacher participating in the research has are a quality telephone and a laptop with an internet connection, essential requirements to use networks as an alternative in teaching Physical Education in times of isolation. In the third question, they were asked to list in order of preference the social networks they use the most, to which they responded that Facebook and WhatsApp.

In his opinion, some of the activities that can be used for the teaching-learning of Physical Education through social networks are:

- Publications of thematic content,
- Video classes and online classes,
- Guidance on physical activities,
- Delve into the rules of different sports,
- Analyze the technique of different sports skills through educational videos,
- Daily routine guides for physical activities that students can do.

In another question, five (83.3%) consider that it is possible to pay attention to individual differences in the teaching-learning process of Physical Education through the use of social networks. In the last question, 100% consider it important to propose activities to encourage the use of social networks as an alternative in teaching Physical Education in emergency situations due to different causes or in daily life in 11th grade students, given by the student preferences for social networks and the multiple options they can offer.

Observation analysis results

From online observation it was possible to verify that 100% of the students are part of some social network. Some of them are users of more than one. And the three social networks most used by them, in order of preference, are Facebook, WhatsApp and YouTube. Of the students investigated, 22, for a (91.66%), use social networks “sometimes”, or even “rarely”, in order to learn the contents of Physical Education, 19 for a (79%) are associated on social networks with various groups of the Institution, which will facilitate the implementation of the proposal, 18 representing (75%) of the students connect to social networks at any time of the day. Responses that show that they are able

to use social networks for other purposes that respond to the teaching of Physical Education in emergency situations.

Results of the analysis of the student survey

The first table presents the answers to the first question, related to the reasons that justify your affinity, taste and preference for social networks.

Table 1. Reasons why the students under study like social networks.

Category	Student Responses	Percent
Communication	10	41,66%
Research and solution of tasks	8	33,33%
Obtain and develop knowledge	5	20,83%
Update	2	8,33%
Carry out various activities	1	4,16%
Forget about personal problems	1	4,16%

Source: self made

Of the students surveyed, 21 (87.5%) consider that social networks, like in other subjects, can be used in the teaching of Physical Education, the rest do not consider it this way and argue that they are very difficult activities to carry out. in any way, apart from practice.

Regarding the availability of computer resources and internet connection, the survey showed that 21 students (87.5%) have a quality telephone to face the challenge, 13 (54.16%) access networks or internet, through a desktop computer with an internet connection, the same number (13) use tables with an internet connection, 11 (45.83%) use a laptop with an internet connection and 10 students (41.66 %) have access to the internet in an Internet café.

The social networks most used by students are Facebook with 95.83% (23), WhatsApp with 62.5% (15 students), YouTube with 16.66% (four students) and Twitter with 4.16 % (a student).

When addressing the responses to question 5 about what activities can be used for the teaching-learning of Physical Education through social networks, the responses were grouped as follows, as shown in the table below:

Table 2. Suggestions for activities for teaching Physical Education through social networks.

Category	Student Responses	Percent
Video classrooms	10	41,66%
sports Videos	1	4,16%
Exercise Videos	9	37.5%
on-line classrooms	3	12.5%
Written texts on school content of Physical Education	2	8.33%

Source: self made

In general, the methods and techniques applied corroborate that, in the Physical Education programs, the lesson plans and the online observations carried out, teachers do not have activities that encourage the use of social networks as an alternative in the teaching-learning of Physical Education in times of social isolation due to emergencies for different reasons, and everyone agrees in recognizing the importance and need for research.

In the second stage, nine activities are proposed, six of which are practical and three theoretical, because the subject of Physical Education is predominantly practical. The proposed activities were designed in accordance with the objectives of the Physical Education Program for the 11th grade of technical-vocational education. Given that eight of the nine activities will be carried out on a social network on the Internet, Facebook was selected, because 95.83% of the students participating in the research use it due to its popularity.

The proposal of activities is reached through:

- a) Research methods.
- b) The results of the diagnosis carried out on the teacher and students of the investigated sample.
- c) The creativity of the researchers.

The activities provide continuity to the contents of the Physical Education Program of the 11th grade of technical-professional education, combining theoretical activities related to the history and regulations of Volleyball and practices, which are predominant, aimed at analysis, demonstration, exercises for the different technical elements of this sport. The proposal is flexible and can be enriched in its implementation and is unprecedented in using social networks as an alternative for teaching this subject.

Activity No. 1

Name: conference on the use of social networks in teaching Physical Education in emergency situations due to different causes or in everyday life.

Objective: to identify the potential of the use of social networks in the teaching-learning of the contents of Physical Education in emergency situations due to different causes in 11th grade students.

Organizational form: group.

Media: video projector, computer, study notebook, mechanical pencil.

Participants: 11th grade teachers and students and interested parties.

Description: in a fluid manner, the speaker or lecturer must answer the following main questions: what are social networks? What are they for? How have they been used in Physical Education? And how can they be used for teaching-learning the contents of Physical Education in an emergency situation? Some controlled and limited interventions by students will be allowed as they have experience with social media.

Methodological Guidelines: the conference must be presented in each group separately on different days. At the end of the conference, the following activity must be guided, including the requirements for its implementation, such as defining the date and time, after having already created a group for this purpose on the selected social network. The activity must be dynamic, active and highlight the potential of social networks in the teaching of Physical Education.

Activity: No. 2

Name: theoretical class (text) – brief history of Volleyball.

Objective: identify the main important dates in the history of Volleyball, developing a taste for reading written texts.

Organizational form: individual.

Media: Subject notebook, mechanical pencil or pencil.

Participants: 11th grade students.

Description: the teacher must publish in the group of the selected social network a short written text about the history of world Volleyball. In turn, students must observe, read the text, note and briefly comment on what interested them most individually. At the end of the text, students are given a task that will consist of an investigation about Angolan Volleyball.

Methodological Guidelines: The activities must be dynamic, active, in a synthetic manner, the most important dates, the most significant results, the development of the implements and playing surfaces, as well as the regulations, must be mentioned.

Activity: No. 3

Name: video class–Exercises of basic positions in Volleyball and adaptation with the ball.

Objective: perform the basic positions of Volleyball and adaptation exercises with the ball, developing balance and honesty.

Organizational form: individual.

Media: Volleyball ball.

Participants: 11th grade students.

Description: the teacher must publish in the selected social media group a recorded video in which he appears performing basic Volleyball positions and adaptation exercises with the ball. In turn, students must observe and reproduce all the activities that the Physical Education teacher carries out and guides. At the end of class, students should individually comment on their appreciation for their performance in class.

Methodological Guidelines: direct attention to the elements to take into consideration when performing the basic positions of Volleyball related to body positions, correct grip of the ball, direction of vision, and the movements to be performed.

Activity: No. 4

Name: online class – Volleyball Pass.

Objective: execute volleyball passes, developing arm strength and concentration of attention.

Organizational form: in pairs.

Media: Volleyball ball.

Participants: 11th grade students and/or a family member.

Description: through the selected social network, the teacher, with the help of an assistant if possible, must present the front pass class in Volleyball, live, that is, in real time in which the students They must in turn observe and reproduce the exercise, with a colleague or family member to help them. At the end, participants will be able to briefly comment on the experience.

Methodological Guidelines: direct attention to the correct way to pass the ball in Volleyball, the position of the legs, position of the trunk, the placement of the arms, the area of the hand with which the ball is hit, ending with the extension of both arms.

Activity: No. 5

Name: Exercise video – serving exercises in Volleyball.

Objective: perform volleyball serves, developing trunk flexibility and collectivism.

Organizational form: trio.

Media: Volleyball ball.

Participants: 11th grade students and/or their families.

Description: a video of people exercising the serve technique in Volleyball must be published in the selected social network group, in which the Physical Education teacher does not appear. The three participants must watch the video, fully analyze the technical gesture and reproduce it. In the end, the research must be guided on the topic of the following activity.

Methodological Guidelines: direct attention to the correct way to perform the serve in Volleyball, the placement of the arms, the area of the hand with which the ball is hit, the hitting power and the direction of the ball.

Activity: No. 6

Name: Video of Volleyball referee signals.

Objective: identify the most used signals in Volleyball refereeing, their analysis, improving memory and showing respect for the rules.

Organizational form: individual.

Media: course notebook and mechanical pencil.

Participants: 11th grade students.

Description: the teacher must publish in the selected social network group an edited video with scenes that show the referees making Volleyball signals in different plays and game situations.

Methodological Guidelines: students should observe, analyze and briefly comment on one or two of the signals.

Activity: No. 7

Name: Sports video – A volleyball play that ends in a goal.

Objective: perform the main technical elements of Volleyball, developing strength in the lower limbs, concentration of attention and respect for teammates.

Organizational form: group (4 elements).

Media: Volleyball ball, net.

Participants: 11th grade students and/or their families.

Description: A Volleyball video must be published in the selected social media group, in which the technique of serve, reception, pass and spike in Volleyball is demonstrated.

The participants in turn must observe and reproduce with the help of other classmates or family members, alternating the positions of each participant after performing the technical gesture.

Methodological Guidelines: They are carried out according to the execution technique of the serve, reception, pass and spike in Volleyball. After watching the video, the students perform the different exercises.

Activity: No. 8

Name: Volleyball pre-sports game.

Objective: apply the content learned in classes in a pre-sports game situation, developing reaction speed and respecting the positions of other teammates.

Organizational form: 2 groups (3 to 4 participants).

Media: Volleyball ball and net.

Participants: 11th grade students organized into two teams and/or members of their family.

Description: through the selected social network, the teacher must organize the students and divide them into two groups of 3 to 4 members, who will play a pre-sports game, subject to adaptations. Participants must play with special attention to the technical elements and referee signals.

Methodological Guidelines: play applying the technique of the different basic elements of Volleyball, fulfilling the tasks directed by the teacher and complying with the regulations.

Activity: No. 9

Name: “We already know about Volleyball” (quick answers)

Objective: theoretically evaluate students' learning about the content taught through the social network, improving long-term memory and developing self-esteem.

Organizational form: individual.

Media: course notebook and mechanical pencil.

Participants: 11th grade students.

Description: the teacher must publish some evaluative questions in the selected social network group. Students must view the question, analyze and respond to their comments. The Physical Education teacher evaluates the correct answers, giving additional points to those who answer the question the fastest and most correctly after being published, between 1 and 20 points are awarded.

Methodological Guidelines: Individual students must demonstrate the knowledge learned in relation to the history, technique and regulations of Volleyball, the answers are individual and it is evaluated that the answers are correct and the agility in responding to further motivate the participants.

Few evaluation activities are planned since their objective is to give continuity to the treatment of the contents of this subject outside the school context, at home or in the community with the participation of the family and the help of social networks. The fundamental way to evaluate the results is, when starting the teaching activities of Physical Education in the school context, with the use of the forms provided in the programs that will show whether or not these activities are carried out.

The evaluation of the first activity is through the answers given by the students, the theoretical activities are evaluated through investigative tasks that are oriented, a task that consists of an investigation on Angolan Volleyball, individual comments on the videos observed on the networks used, by socializing their experiences about the practical activities carried out. In the last activity, which is evaluative, points are awarded for the quality of the answers and the speed of responding.

Evaluation of the proposal by the criteria of the introductory users

We work with an intentional sample of 10 introductory users, of them, two women and eight men, the average number of years of experience as Physical Education teachers is 5 years.

The survey applied to introductory users contains two indicators:

- 1) Social utility of the proposed activities.
- 2) Real possibility of implementing the proposed activities for teaching Physical Education in emergency situations due to different causes.

These are presented in the form of positive statements, in relation to which the proposed activities are very useful and can really be implemented, where each user could independently assign values ranging from 1 to 5, corresponding to the following evaluations:

- (5) Very suitable (MA) (2) Not very suitable (PA)
- (4) Fairly adequate (BA) (1) Not adequate (NA)
- (3) Adequate (A)

In the first question related to the social usefulness of the proposal, five of the users surveyed, representing 50%, respond that I completely agree, the other 50% partially

agree, which shows that as a whole the users grant the highest ratings of 5 and 4 points for this indicator related to the usefulness of the proposal.

In the second indicator, the results are favorable, with the highest percentage of six users, representing 60%, considering that it is very suitable to be implemented and 40% that it is quite suitable. Although the responses are not entirely similar, they are in favor of its possible implementation. In general, it is noted that of the possible 20 responses that can be offered, 100% correspond to favorable responses, in which they assign ratings between 5 and 4 points, in relation to the usefulness and real possibility of implementing the proposal.

Table 3. Value and meaning of Cronbach's alpha test

α of Cronbach	0.80
Evaluation	Reliability

Source: self made

The third question asked them for three suggestions to improve the proposal and they indicated:

1. Analyze the number of participants in some activities,
2. Recommend to the participants the characteristics that the spaces used should have and the appropriateness of the dimensions.
3. Analyze organizational procedures.

For the averages, it was calculated firstly, from the points issued by each user and secondly from all of them, in relation to the two indicators, operations whose result is 4.45. Since decimal numbers were not used in the scoring, it was rounded down, an action that resulted in an overall average of 4 points. This value implies that, on average, the consulted users consider it “fairly adequate”, which shows that the proposed activities are very useful and can really be implemented. And the criteria issued have a low coefficient of variation, which demonstrates the high capacity of the average to represent all of the data.

Conclusions

The proposal of activities to encourage the use of social networks as an alternative in the teaching of Physical Education in emergency situations due to different causes or in daily life, addresses the characteristics of 11th grade students, these are varied and motivating, Practical activities predominate and guarantee treatment of the 11th grade objectives. All of the users consulted issued favorable criteria in relation to the social usefulness and real possibility of implementing the proposed activities to encourage the use of social networks as an alternative in the teaching of Physical Education.

References

- Barrios (2014) Ávila Barrios, Delia. (2014). The use of ICT in the environment of the new Mexican public management. *Scaffolds*, 11(24), 263-288. Retrieved on June 30, 2023, from http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S187000632014000100014&lng=es&tlng=es.
- Cabero Almenara, J., Barroso Osuna, J., Llorente Cejudo, M. d. C. and Yanes Cabrera, C. (2016). Social networks and Information and Communication Technologies in Education: collaborative learning, gender differences, age and preferences. *Journal of Distance Education*, 51, 1-23. 10.6018/red/51/1
- Cabero, Almenara. J. and Marín, Díaz. V. (2014). Educational possibilities of social networks and group work. Perceptions of university students. *Scientific Rev. of Communication and Education*. No 42, pages 165-172. <https://dialnet.unirioja.es/servlet/articulo?codigo=4525785>
- Chacón Díaz, L. F. and Limas Suárez, S. J. (2019). Virtual courses aimed at competencies: a look at the relevance and educational and technological innovation of the 21st century. *Ibérica Magazine of Information Systems and Technologies*, E20, 113-125. <https://search.proquest.com/openview/24835c788dbfae06c71df3c751073ea3/1.pdf?pq-origsite=gscholar&cbl=1006393> [Links]
- Comboza Alcívar, YR., Marcos Alejandro Yáñez Rodríguez and Yeneri Carolina Rivas: “The use of ICT in the teaching and learning process”, *Atlante Magazine*:

Cuadernos de Educación y Desarrollo (January 2021). Online:
<https://www.eumed.net/es/revistas/atlante/2021-enero/uso-tic-ensenanza>

Hernández Mite, K. D., Yanez Palacios, J. F., & Carrera Rivera, A. A. (2017). Social networks and adolescence. Impact on physical activity. *University and Society*, 9(2), 242-247. Retrieved from <http://rus.ucf.edu.cu/index.php/rus>
http://scielo.sld.cu/scielo.php?script=sci_abstract&pid=S2218-36202017000200033

INIDE. (2013). *Physical Education Program - 11th Class of professional technical secondary education*. (2nd ed.). Luanda: Angola.

Limas, S. J. and Vargas, G. (2020). Social networks as an academic strategy in higher education: advantages and disadvantages. *Education and Educators*, 23(4), 559-574. <https://doi.org/10.5294/edu.2020.23.4.1>

López Neira, L. R. (2017). Inquiry into the relationship between learning and digital technologies. *Education and Educators*, 20(1), 91-105. [10.5294/edu.2017.20.1.5](https://doi.org/10.5294/edu.2017.20.1.5) [Links]

Valdivia, S., Quintero, LA., Banguela, S., Ramos, G and Entensa, SG (2021). Exercises for the physical condition of older adults at home during the Covid-19 pandemic. *Science and Physical Activity* Vol. 8, No. 2, Month July-December, 2021. Pages 73-82. <http://revistaciaf.uclv.edu.cu/index.php/revista/article/view/129/422>.