

## THE DIDACTICS OF ONLINE VIDEOS, WHICH SUGGEST INDIVIDUAL PHYSICAL ACTIVITIES AT HOME, TARGETTING STUDENTS OF PRIMARY AND MIDDLE SCHOOL, DURING THE 2020-2021 PANDEMIC SCHOOL YEAR

BARTHA VELU-SEBASTIAN<sup>1\*</sup>, VĂIDĂHĂZAN REMUS<sup>2</sup>

**ABSTRACT.** As COVID-19 swept across the world, educators, including those responsible for teaching physical education, were left wondering about those teaching methods that could work best for the remote learning situation, taking into consideration the apocalyptic circumstances (Morris, 2018). Unfortunately, these detrimental situations are unpredictable and challenging to prepare for. Difficulties have arisen due to the education's way of responding to the COVID-19 crisis. **Objective of the study:** The objective of this study was to analyze some of conclusive video tutorials for online physical education classes, tutorials suggested by the Education and Research Minister in Romania. Furthermore, we would like to put into spotlight a few striking issues that might need to be improved in terms of form and content in video tutorials. **Methods:** We used a comparing protocol document to differentiate the characteristics of the YouTube tutorials from the scholar physical education theory and methodology. We analyzed 30 tutorials, which were suggested as educational contents meant to be used in online physical education classes. **Conclusions:** Technology can be useful in numerous ways, by helping physical education teachers and improving student engagement and assessment. A lot of mistakes will be made on the way, but it will be worth it as long as the guidelines of physical education didactics are applied. The study can be used by teachers and students in the future to improve their video tutorials used in online learning physical education classes or to practice spare time physical activities.

**Key words:** *Physical Education, online learning, YouTube, tutorials, COVID-19.*

---

<sup>1</sup> University of Babeş-Bolyai, Cluj-Napoca, Faculty of Physical Education and Sport

<sup>2</sup> University of Babeş-Bolyai, Cluj-Napoca, Faculty of Psychology and Science of Education

\*Corresponding author: barthavelu@gmail.com

**REZUMAT.** *Didactica tutorialelor video, care propun activități fizice acasă, pentru elevii din ciclul primar și gimnazial, în anul școlar 2020-2021.* În martie 2020, profesorii de educație fizică din toată țara au fost forțați să își asume un rol nou, necunoscut pentru mulți, cel al profesorului distant, îndepărtat. Cursurile de educație fizică online, instituite aproape la nivel mondial în timpul pandemiei din 2020, au fost o experiență complet nouă atât pentru profesori, cât și pentru elevi. Trecerea bruscă la cursurile online i-a lăsat pe profesori nepregătiți fiind nevoiți să lupte cu metode de predare necunoscute, obligându-i să recurgă la încercări noi, asumându-și anumite erori în abordări. **Obiectivul studiului:** Obiectivul acestui studiu a fost analizarea unor tutoriale video utilizate pentru lecțiile de educație fizică online, sugerate de Ministerul Educației și Cercetării din România. Am menționat câteva particularități care ar trebui îmbunătățite în ceea ce privește forma și conținutul unui tutorial video educațional. **Metode:** Am folosit un protocol de analiză pentru a diferenția caracteristicile tutorialelor video YouTube din prisma teoriei și metodologiei educației fizice școlare. Am analizat 30 de tutoriale, care au fost sugerate ca și conținut educațional menite să fie utilizate la cursurile de educație fizică online. **Concluzii:** Tehnologia poate fi utilă în numeroase moduri, ajutând profesorii de educație fizică și îmbunătățind motivația elevilor de a participa activ la aceste lecții în mediul online. Studiul poate fi folosit de profesori / studenți în viitor pentru a-și îmbunătății tutorialele video folosite în lecțiile de educație fizică online sau pentru a practica activități fizice de timp liber. În aceeași ordine de idei, studiile viitoare ar trebui să examineze, de asemenea, eficiența tutorialelor video de pe platforma YouTube, folosite în lecțiile de educație fizică și sport din mediul online, contribuind astfel la crearea unei structuri standard unui tutorial de bună practică care să poată fi folosit atât în domeniul Educației fizice și sportului cât și în activitățile fizice de timp liber.

**Cuvinte cheie:** Covid-19, educație fizică online, tutoriale video, YouTube.

## Introduction

Video tutorials are not tools that all teachers use, but nevertheless, in times of crisis, this is recommended as a lifeline to deal with a variety of difficult circumstances in education. Proponents of virtual education highlight the many strengths of online education. These include flexibility for the traditional and non-traditional model, increasing diversity, and increasing access to education (Deming, Goldin, Katz, & Yuchtman, 2015).

There is no way to avoid them, digital technologies are everywhere. When technology is available in a classroom, it can be used for educational purposes, and when used effectively by teachers and students, it creates an indispensable tool for education today. Physical education can also benefit from a multitude of great ideas whilst including technology in the teaching process.

During the Covid-19 pandemic, the interactions between teacher and student were transposed into the digital environment, so for the development of physical education and sports classes in the online environment, various educational platforms were used. However, the use of video tutorials through the YouTube platform has been declared to be an indispensable tool for both teachers and educators in the 2020-2021 school year (MEC, 2021).

A tutorial in education, is a method of transferring knowledge and can be used as a part of a learning process. In an educational setting, a tutorial is a regular meeting between a tutor or teacher and one or more students to discuss a topic that is being studied. More interactive and specific than a book or lecture, a tutorial seeks to teach by example and demonstration and also to provide information to complete a particular task. A tutorial can be viewed in many forms, ranging from a set of instructions to complete a task to an interactive problem-solving session.

As a teaching supplement, YouTube can be used to support those students who, because of their digital learning style, are more accustomed to learning through technology than through more traditional learning methods. By the means of this innovative online resource, teachers help educators create and use content that is processed by specialists in the field, thus providing a more engaging and alluring learning environment.

Online learning cannot be applied in the same way for every student's imagination, but whether or not it is successful in the learning process depends on the students' desire to learn. The success of the learning process can be seen from the reciprocity of the teacher-student relationship, such as behavior, attitudes and interests for this process.

### **Objectives of the study**

The first objective was to build a reference model that respects the guidelines of physical education didactics and it should be applied on every tutorial building process.

The second objective was to analyze video tutorials that propose physical activities at home for primary and secondary school students used in online physical education lessons.

At the same time, the third objective was to highlight some errors of form or content, encountered in educational video tutorials, mistakes that may expose the student to the risk of injury or misinterpretation of the material presented.

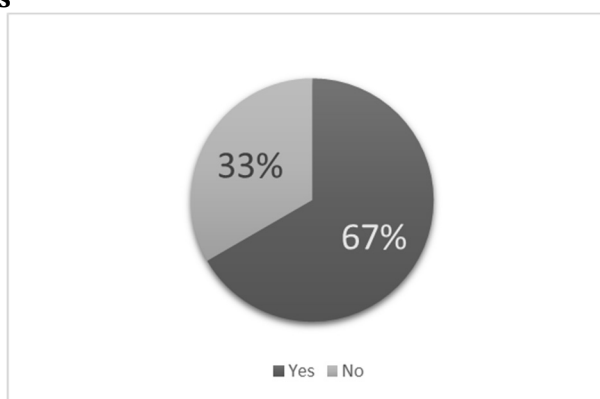
### **Subjects and methods**

Our sample research consisted of 19 content creators who published video tutorials, as follows:

- 8 teachers and / or special organizations in the field of physical education and sports;
- 6 individuals and / or non-specialized organizations;
- 5 persons and / or organizations about whom no information is displayed regarding the field in which they work or the knowledge they acquire, but who have proposed teaching materials on the YouTube platform for activities in school physical education online during the pandemic COVID-19.

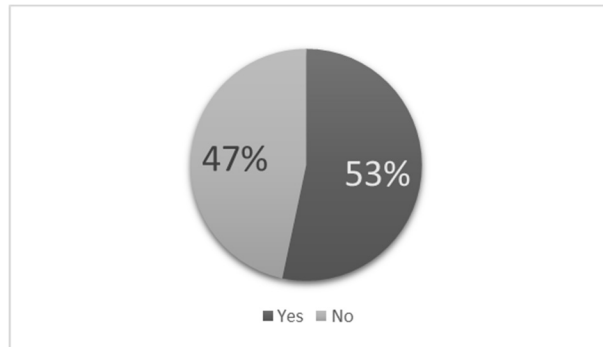
The research took place between December 2020 - March 2021 and was carried out by accessing the YouTube platform and the forums of the county board of education made available for teachers in Romania. The actual research started on 03.12.2020 when the Ministry of Education and Research broadcasted on YouTube an online meeting dedicated to the discipline of Physical education and sports, in support of teachers who work with the support of technology. The meeting took place in the form of an interactive presentation in order to highlight possible didactic approaches of teaching-learning-assessment, in the online context created by the pandemic situation caused by COVID-19 in Romania. After watching this online meeting, we created in the Microsoft Excel application a table of criteria that we used for our methodical approach when we analyzed tutorials on YouTube platform. The next step was the detailed analysis of 30 video materials proposed by the county school inspectorates on the YouTube platform, following the organized observation and the systematic analysis of their didactics. The last step was the interpretation of the results obtained after the systematized analysis of the materials and the formulation of some recommendations regarding the structure and didactics of the tutorials for educational purpose in online school physical education.

## Results



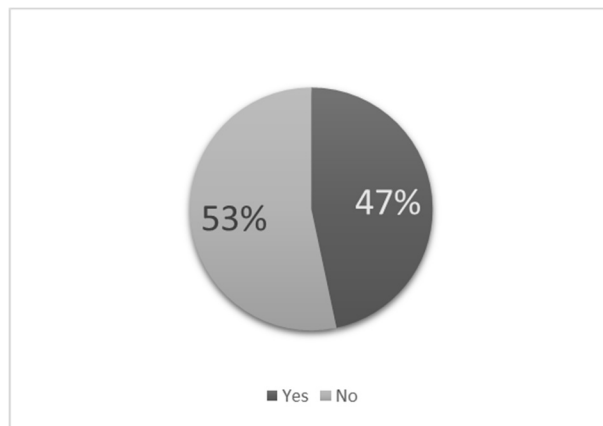
**Chart 1.** Specifying the part of the lesson

From the Chart. 1, it appears that in 67% of the analyzed videos is mentioned the part of the lesson for which the physical exercises are presented, and in 33% of cases it is not mentioned



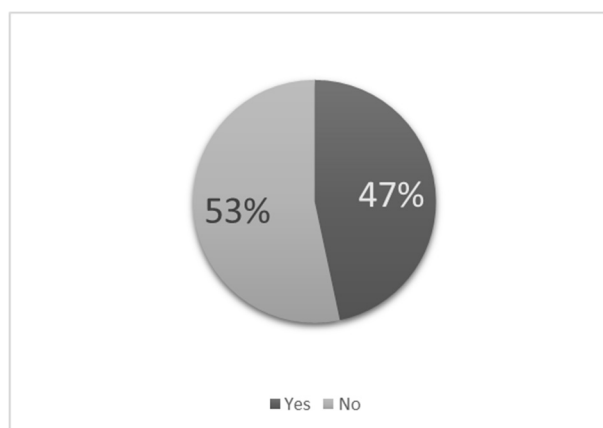
**Chart 2.** Specifying the necessary materials

From Chart 2. it results that in 53% cases, data of the materials necessary for carrying out physical activities were mentioned, and in 47% of the lessons they were not mentioned.



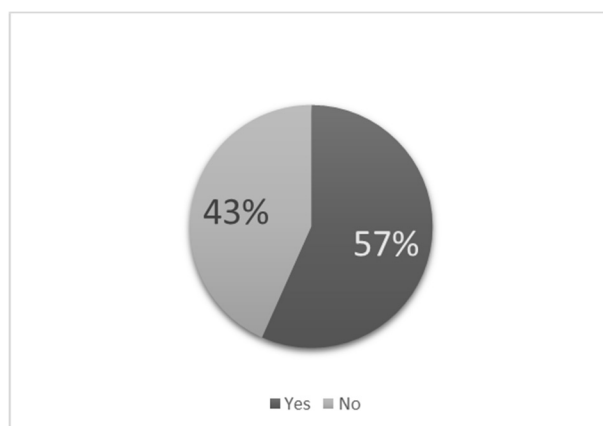
**Chart 3.** Details for organizing the workspace

The results in Chart 3. show that in 47% of the videos, information related to the workspace was specified and in 53% this information was not mentioned.



**Chart 4.** Mentioning the age group

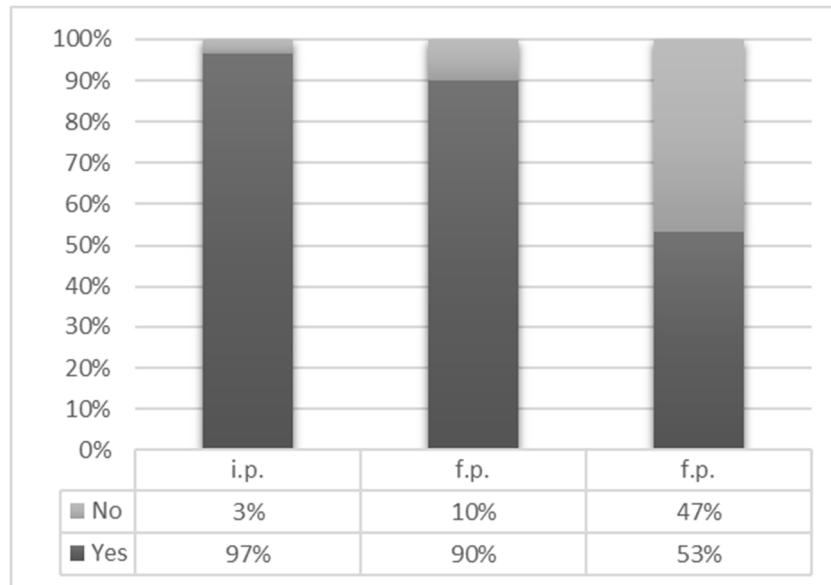
From the fourth feature of the tutorials watched, the results in Chart 4 show that 47% focused on mentioning the age group for which the exercises were proposed, and in 53% of the tutorials no such details appear.



**Chart 5.** Information about content creators

Chart 5 shows that in 57% of the videos, information about the people who uploaded the materials is visible, and in 43% of the contents are not mentioned at all.

THE DIDACTICS OF ONLINE VIDEOS, WHICH SUGGEST INDIVIDUAL PHYSICAL ACTIVITIES AT HOME, TARGETTING STUDENTS OF PRIMARY AND MIDDLE SCHOOL, DURING THE 2020-2021 PANDEMIC ...



**Chart 6.** Corresponding structure

Chart 6 shows that 3% did not have the introductory part, 10% did not have the fundamental part, and 47% of the tutorials did not have the final part in their structure.

### **Discussions**

Physical education teachers have been exploring various implementations of technology for quite some time. The strong development of the Internet has inspired teachers to use web technology to access educational resources and connect to professional organizations, access various educational content, and supplement digital materials in the classroom (Ellery, 1997).

Platforms for hosting digital resources such as video tutorials, as YouTube, are important for teachers who apply the traditional style, to establish a sense of community in the classroom and to achieve an effective teaching approach even online. Through this platform, instructors have a new educational tool that communicates with the educators of the new millennium and is oriented towards the learning style of those who are more accustomed to learning online.

We have the certainty that the video tutorials hosted on online platforms, such as Youtube, are and will continue to be indispensable supplies in the conduct of physical education and sports lessons in the online environment, being used as educational teaching materials for certain presentations, demonstrations, etc.

A video tutorial is built according to a certain structure that includes an introductory, fundamental part and a final part (Grosseck & Malița, 2015). The didactics of physical education and sports require that in the introductory part of a tutorial to be presented, in general, organizational information about the activity to be carried out. The next part is a demonstration of physical exercises along with explanations of the practice. The final part represents the end in an appropriate and academic style of a physical activity by appreciating the effort made by the participants and formulating recommendations regarding the practice of physical activities in their free time.

Because in our research we analyzed both complete physical education and sports lessons, as well as certain parts of a lesson, we propose that in the introduction of educational video tutorials proposed for online physical education and sports lessons, to specify the part of the lesson where it falls the structure of the content created. This aspect guides both teachers who use these tutorials, and people who use them for their own purposes to practice physical leisure activities.

Physical education and sports in the online environment take place as a separate phenomenon of each individual, either teacher or educable. From our point of view, the notions of “workspace” and “necessary materials” have taken on a completely different meaning by comparing the terms used in traditional didactics of physical education and sports. Thus, we claim that it is essential to mention the aspects related to the workspace for physical exercises, within an educational video tutorial.

In our opinion, any user of the YouTube platform, when viewing a video content, could check the profile of its creator. We believe that it is essential to present the data of the creator or creators of the tutorials, because it is important to know about these creators if they have knowledge in the field in which they published the video resource.

For the analysis of the educational contents from the online environment, we created 2 tables in which we mentioned the minimum requirements that should be met in order to create a successful video tutorial. In terms of form, the size and format of the videos, the soundtrack, the accessibility of the playback in slow motion, the clarity of the teacher's voice, the distance from the device during the representation, the size, color and font of the text used, and the data of the content creators.



**Tabel 1.** Aspects regarding the form of video tutorials

<b>Form</b>
Video size / format should be accessible from 480p (854 x 480) to the highest quality. (HD, full HD etc.)
The soundtrack of the tutorials should be copyrighted to use songs from other content creators on YouTube.
Willingness to play video tutorials in slow motion.
The voice of the instructor / teacher should be clear, not disturbed by various background sounds during teaching of the contents.
During the demonstration of some movements, the instructor / teacher should be at a suitable distance from the recording device.
The text displayed on the screen during the tutorials should not be displayed over other content and should be legible in terms of the size, color and font of the characters used.
To be mentioned in text form, in the educational tutorial or below it, data about the content creator, and the date of publication of the material.

Table 2 presents aspects strictly related to the content of educational tutorials. The content was divided into 3 parts -introduction part; fundamental part; final part - and conclusion of video tutorials, clarity of explanations and accuracy of demonstrations, fluency of presentation, specification of necessary teaching materials, terminology, dynamism of information, capturing attention, and the presence of advertisements in educational tutorials. These aspects, if they are properly respected and implemented, will create a good didactic tool.

**Tabel 2.** Aspects regarding the content of video tutorials

<b>Content</b>
The content of the tutorials should be structured in at least 3 parts: -introduction part; -fundamental part, -final part.
The educational content should be explained / demonstrated clearly and precisely.
The educational content should be taught fluently and without excessive deviations from the subject of the content.
To specify the didactic materials necessary for the active participation of the educators / subjects in the development of the lesson with the help of video tutorials.

The language of the instructor / teacher should be an academic one, respecting the specialized terminology in the field of the created tutorial.
The information of the didactic content should be rendered dynamically, through images, demonstrations, representations rather than just being listed and explained verbally or through text.
The playback of the educational content should be done in such a way as to capture the attention of those who view the video tutorial.
The educational tutorial should not be interrupted by advertisements that could disturb the lesson.

### Conclusions

Online physical education courses, instituted almost worldwide during the 2020 pandemic, have been a completely new experience for both teachers and students. The sudden transition to online courses has left teachers puzzled, having to struggle with unknown teaching methods, forcing them to resort to new techniques, assuming certain errors in their approaches.

We strongly suggest that it is necessary to review and systematize the approaches in the proposed tutorials for physical education and sports lessons in the online environment, because online courses are continuing to develop and will become critical for current and future teachers of the online environment. Thus, the correct use of technology to improve students' learning in virtual environments is mandatory and we hope that these recommendations will be properly implemented in the online education of future generations.

### REFERENCES

- Beard, J., & Konukman, F. (2020). Teaching Online Physical Education: The Art of Connection in the Digital Classroom. *Journal of Physical Education, Recreation & Dance*, 91(7), 49-51. <https://doi.org/10.1080/07303084.2020.1785772>
- Casey, A. & Jones, B. (2011). Using digital technology to enhance student engagement in physical education. *Asia-Pacific Journal of Health, Sport and Physical Education*, 2(2), 51-66. <https://doi.org/10.1080/18377122.2011.9730351>
- Cârstea G. (2000). *Teoria și metodică educației fizice și sportului*. AN-DA.

- Daum, N.D. (2020). Thinking about Hybrid or Online Learning in Physical Education? Start Here!. *Journal of Physical Education, Recreation & Dance*, 91(1), 42-44. <https://doi.org/10.1080/07303084.2020.1683387>
- Dragnea, A., Bota, A., Stănescu, M., Teodorescu, S., Șerbănoiu, S., & Tudor, V. (2006). *Educație Fizică și sport - Teorie și Didactică* -. FEST.
- Friskawati, G. F., Karisman, A. V., & Stephani, R. M. (2019). Analyzing the Challenges to Using Technology in Physical Education. *Advances in Social Science, Education and Humanities Research*, 407, 15-17.
- Juniu, S. (2011). Pedagogical Uses of Technology in Physical Education. *Journal of Physical Education, Recreation & Dance*, 82(9), 41-49. <https://doi.org/10.1080/07303084.2011.10598692>
- Koekoek, J., Van der Mars, H., Van der Kamp, J., Walinga, W., & Van Hilvoorde I. (2018). Aligning Digital Video Technology with Game Pedagogy in Physical Education. *Journal of Physical Education, Recreation & Dance*, 89(1), 12-22. <https://doi.org/10.1080/07303084.2017.1390504>
- Mohnsen, B. (2012) Implementing Online Physical Education. *Journal of Physical Education, Recreation & Dance*, 83(2), 42-47. <https://doi.org/10.1080/07303084.2012.10598727>
- Weir, T., & Connor, S. (2009). The use of digital video in physical education. *Technology, Pedagogy and Education*, 18(2), 155-171.