

THE IMPORTANCE OF LEARNING AND CONSOLIDATING MOTOR QUALITIES THROUGH DYNAMIC GAMES IN PHYSICAL EDUCATION AND SPORT CLASSES

Ioan Sabin SOPA *

University “Lucian Blaga,” Faculty of Science, Department of Environment Sciences, Physics, Physical Education and Sport, Address: Str. Ion Rațiu, No. 5-7, Sibiu, C.P. 550012, Romania
Corresponding author: sabin.sopa@ulbsibiu.ro

Marcel POMOHACI

University “Lucian Blaga,” Faculty of Science, Department of Environment Sciences, Physics, Physical Education and Sport, Address: Str. Ion Rațiu, No. 5-7, Sibiu, C.P. 550012, Romania, e-mail: puiu.pomohaci@ulbsibiu.ro

Abstract: The pandemic infection generated many malfunctions in everyday life of the human being in all domains starting from the sanitary domain, economic, transportation, and not the last, the educational system. Physical Education was one of the most affected from the curriculum discipline, being a predominantly practical activity in which teachers were not accustomed to using interactive electronic means. The present research highlighted the importance of using alternative physical education for online teaching. The research used the questionnaire method on a 31 sample of physical education teachers to find out the importance of using dynamic games in the process of learning and consolidating the motor qualities. The responses showed that the majority of teachers consider that the dynamic games represent a good alternative and method for online teaching-learning process and consolidating the motor qualities in the physical education lessons. Also, this dynamic game brings joy and happiness starting from young age to the oldest, offering a good way of learning and having fun.

Key words: physical education, dynamic games, motor qualities, motor development.

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INTRODUCTION

The development of motor skills is one of the objectives of physical education, which at first glance would be another component of the “motor literacy” of students, but, in the course of our work with them, we have noticed a significant interdependence between the two, defined as “mutual potentiation” (Neagu, 2010).

Motor activity involves every form of movement from spontaneous twitches to goal-directed movements, from head to toe in every part of the body, from solo play to group interactions in every physical and social sense. Motor activity growth bridges the entire lifespan from the first fetal motion to the last dying breath (Adolph & Franchak, 2017).

Also, evidence of the value of physical fitness for youth’s health is shown in several studies associating it with, among others, better cardiovascular function (Baumgartner et al., 2020),

* Corresponding Author

movement skills (Rainer & Jarvis, 2020), or weight status and reducing obesity (Garcia-Hermoso et al., 2020; Parra et al., 2020). Regarding the psychological domain of health, psychological wellbeing is defined as the combination of positive effects and optimal social and personal efficiency (Deci et al., 2008); self-esteem represents confidence in and respect of oneself; anxiety is characterized by a feeling of unease about situations with uncertain outcome; while stress is a psychophysical response when facing demanding or adverse environmental conditions. Also, other scientific papers highlight the importance of physical development as contributory factors of influence in sport performance (Szabo et al., 2020a). All of these variables seem to be associated with youth's health levels, although in different ways. For instance, authors suggest that psychological wellbeing, social inclusion, and social support are positively correlated (Arslan, 2018). Similar positive interactions are found with peer relationships (Gomez-Lopez et al., 2019); self-esteem seems to play a role in preserving mental health (Triana et al., 2019), as well as in modulating individuals' behaviors (Fan et al., 2019); childhood anxiety has been linked with increased risk of depression (Griffith et al., 2020) and higher emotional imbalance (Shimshoni et al., 2020); finally, findings from previous research highlight a direct association between childhood depression and stress (Bai et al., 2020), leading to higher risk of the onset of eating disorders and obesity (Micheks, 2019). Physical education and sport activities also contribute to an optimal development of children with a good postural and harmonious development (Szabo et al., 2020b), and well-developed motor qualities (Szabo et al., 2020c; Szabo & Sopa, 2020a; Szabo & Sopa, 2020b).

The high use of dynamic games leads to students' active participation, improving their motor parameters and motor skill. At the same time, they positively influence and develop personality traits such as spirit of competition, attractiveness, attitude, fair play, will, diligence, and determination (Tulbure et al., 2021).

During the past year, 2020, the worldwide suffered a big crisis generated by the SARS-CoV-2 infection, and a general pandemic was declared all over the planet. The pandemic infection generated many malfunctions in everyday life of the human being in all domains starting from the sanitary domain, economic, transportation, and not the last, the educational system. The classical learning process was affected by the restriction of meeting face-to-face and introducing the quarantine and the obligatorily to stay home. The whole education system had to be restructured, and teachers had to find new online solutions for continuing the learning process. Physical Education was one of the most affected from the curriculum discipline, being a predominantly practical activity in which teachers were not accustomed to using interactive electronic means.

Some scientific papers highlighted the importance of daily practicing physical Education and sports activities (Cheng et al., 2018; Engeseth et al., 2018; Tiberi & Piepoli, 2019; Tulbure et al., 2020), and also a decrease in physical activity can also affect a person's mental health, which may be experienced as unpleasant emotions such as sadness, anger, and frustration (Brooks et al., 2020). Physical activity can be positively correlated with a pandemic state. Simple physical activity can reduce the harmful effects of strict quarantine (Apriyanto et al., 2021).

Other scientific papers highlight the importance of coping with stress during the Pandemic and how physical education or sports activities could help reduce stress and anxiety (Samelko et al., 2020; Popa et al., 2020). Positive coping is associated with better mental health outcomes, while negative coping is associated with psychological problems (Mark & Smith, 2012a; Mark & Smith, 2012b). The COVID-19 outbreak poses a significant threat to public health worldwide. This mental distress has been mainly described as sleep disturbance, symptoms of anxiety and depression, post-traumatic stress disorder, decision incapacity, and even somatic symptoms (Master et al., 2020). World Health Organization sustained the idea that School settings provide youth with critical opportunities for physical activity (PA), a key driver of positive physical, social-emotional and mental health among youth (WHO, 2020).

PURPOSE

The purpose of the study was to identify the importance of using dynamic games in the process of learning and consolidating specific motor qualities in the Physical Education lessons. The purpose of the experiment was to enquire a group of specialists in PE domain of their opinion on using dynamic games in the process of teaching and learning.

OBJECTIVES

Using the questionnaire method our objectives of the research was to identify the general opinion regarding the efficiency of dynamic games in the teaching-learning process of motor qualities in the PE activities.

HYPOTHESES

The research started from the idea that using a questionnaire of opinions applied to a group of teachers – specialists in the PE domain, we can identify their general conception regarding the efficiency of using the dynamic games in the teaching-learning process from PE lessons.

MATERIALS AND METHODS

The method used in our experiment was the questionnaire of opinions. The questionnaire had ten items (questions) with a gradation scale of five levels starting from 1 to 5 (with one meaning total disagreement with the affirmation and five meaning total agreement with the affirmation). The questionnaire had as objectives to discover teachers' opinions from the Physical Education domain regarding the difficulties that pandemic Covid-19 produced in the learning process.

STUDY DESIGN AND SUBJECTS

The questionnaire objectives were to discover the general opinion of specialists regarding the usage of dynamic games in the teaching-learning process in PE lessons. The design of the questionnaire followed the importance of dynamic games as an ideal framework for developing motor skills, the importance of learning / developing motor skills being a primary goal in PE lessons that must be based on teaching principles such as: accessibility, continuity, modeling and fundamental learning. Also, the questionnaire asked if the dynamic games are an important method for fulfilling the objectives of PE lessons and also if the number of motor skills that students learn is more important than the performance that these skills reach. Other items of the questionnaire, enquire about the most effective training methods in PE as explanation, demonstration and practical methods and the efficiency of dynamic games through their playful specificity building good atmosphere and emulation among students. Last three items question the usage of dynamic games as a very effective method of learning motor skills, being the basis of youth sports performance, and being a good method of increasing attractiveness in PE lessons

Place of the research

The research took place at the "Lucian Blaga" University of Sibiu, at the Faculty of Sciences. We distributed the questionnaire to physical education and sports teachers to discover the importance of learning and developing motor skills through dynamic games in the physical education and sports lesson at middle school level, as well as their development methods.

Subjects of the research

The subjects of the research were 31 PE teachers, 17 male (55% from total) and 14 female (45% from total), with age between 20 (11 persons and 25% from total) and over 45 years old (2 persons and 6,5% from total), with different levels of experience starting from 1-3 years (17 persons and 55% from total) to over 15 years of experience (5 persons and 16% from total), and

different degrees (without “definitivat” 20 persons and 65% from total or first degree (3 persons representing 10% from the total).

RESULTS

The results of the questionnaire were represented in the following graphics for better understanding of the opinions of teachers. At the first item that questioned the teachers if the dynamic games provide the ideal framework for learning / developing motor skills, the 31 teachers answered as follows: 17 teachers (representing 54,8% from the total) totally agreed with the presumption; 14 teachers (representing 45,2% from the total), partially agreed with the presumption.

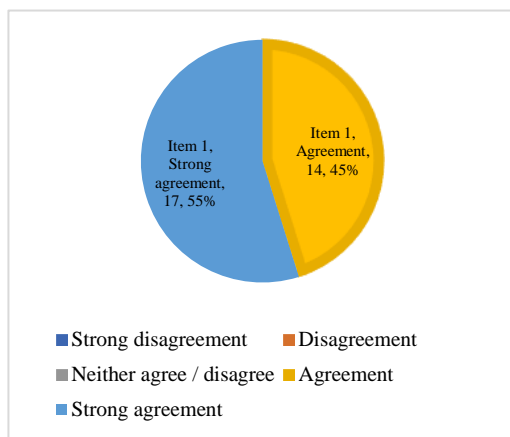


Figure 1. Answers to Item 1: Dynamic games provide the ideal framework for learning / developing motor skills

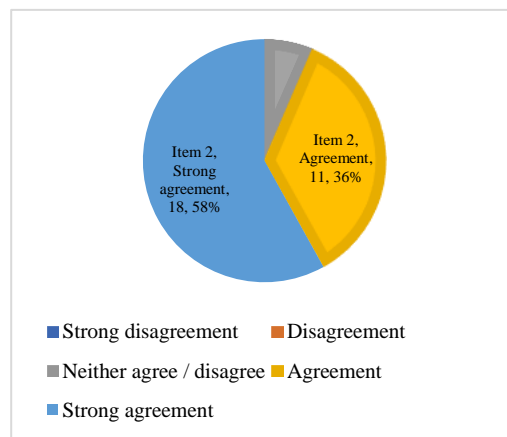


Figure 2. Answers to Item 2: Learning / developing motor skills is a primary goal of the physical education and sports lesson at gymnasium school level

The answers to the second item of the questionnaire regarding “learning / developing motor skills is a primary goal of the physical education and sports lesson at gymnasium school level”, were the following: 18 teachers (representing 58,1% from the total) strongly agreed with the presumption; 11 teachers (representing 35,5% from the total) had a good agreement with the presumption and just 2 teachers (representing 6,5% from the total) neither agree or disagree the idea.

At the third item of the questionnaire that referred to “the process of learning and developing motor skills must be based on the principles of teaching such as: accessibility, continuity, modeling and fundamental learning”, the following results have been obtained: 12 teachers (representing 38,7% from the total) strongly agree with the affirmation; 10 teachers (representing 32,3% from the total) agree with the presumption; 8 teachers (representing 25,8% from the total) neither agree / disagree; one teacher (representing 3,2% from the total) disagree with the affirmation.

Regarding the 4rd item of the questionnaire that emphasise the idea that “Dynamic games are an important method of fulfilling the objectives of the physical education and sports lesson at the gymnasium level”, the answer was the following: 12 teachers (representing 38,7% from the total) had a strong agreement, 10 teachers (representing 32,3% from the total) agree with the presumption, 8 teachers (representing 25,8% from the total) neither agree or disagree, and just one teacher (representing 3,2% from the total) disagree with the affirmation.

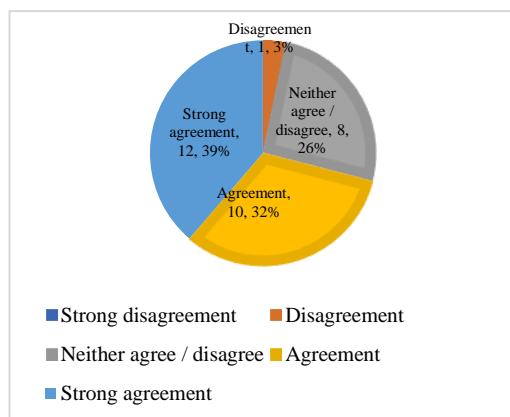


Figure 3. Answers to Item 3: The process of learning and developing motor skills must be based on the principles of teaching such as: accessibility, continuity, modeling and fundamental learning

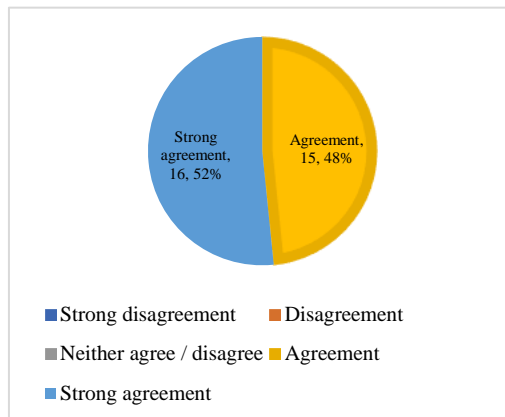


Figure 4. Answers to Item 4: dynamic games are an important method of fulfilling the objectives of the physical education and sports lesson at the gymnasium level

At the 5th item of the questionnaire that “the number of motor skills that students acquire is more important than the level of performance that these skills reach”, the following results were obtained: 12 teachers (representing 38,7% from the total) had a strong agreement with the presumption, 11 teachers (representing 35,5% from the total) agreed with the statement, 6 teachers (representing 19,4 % from the total) neither agreed or disagreed, and 2 teachers (representing 6,5% from the total) disagree with the statement.

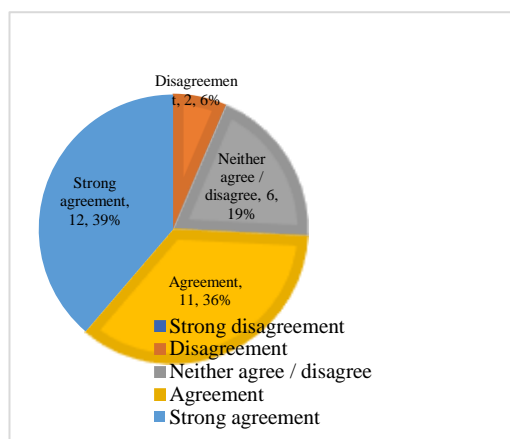


Figure 5. Answers to Item 5: “The number of motor skills that students acquire is more important than the level of performance that these skills reach”

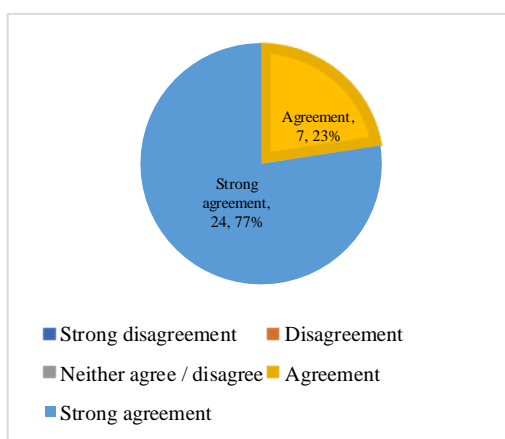


Figure 6. Answers to Item 6: “In the process of learning motor skills the most effective training methods are: explanation, demonstration and practical methods”

Regarding the 6th item of the questionnaire “in the process of learning motor skills the most effective training methods are: explanation, demonstration and practical methods”, the results were the following: 24 teachers (representing 77,4% from the total) had a strong agreement with the statement, 7 teachers (representing 22,6% from the total) agree with the presumption.

At the 7th item regarding “Dynamic games, through their playful specificity, form an emulation for students through which they acquire certain motor skills”, the following results were obtained: 20 teachers (representing 64,5% from the total) had a strong agreement with the statement, 7 teachers (representing 22,6% from the total) agreed with the presumption and 4 teachers (representing 12,9% from the total) neither agreed or disagreed.

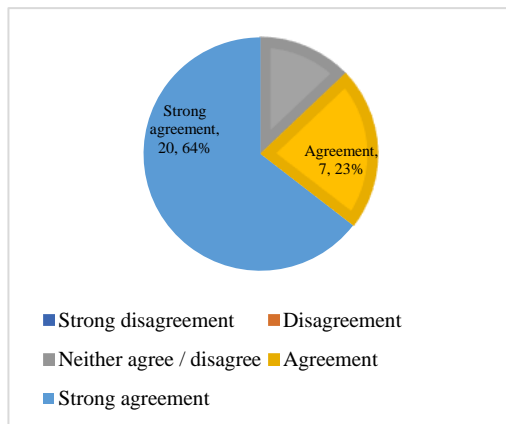


Figure 7. Answers to Item 7: “Dynamic games, through their playful specificity, form an emulation for students through which they acquire certain motor skills

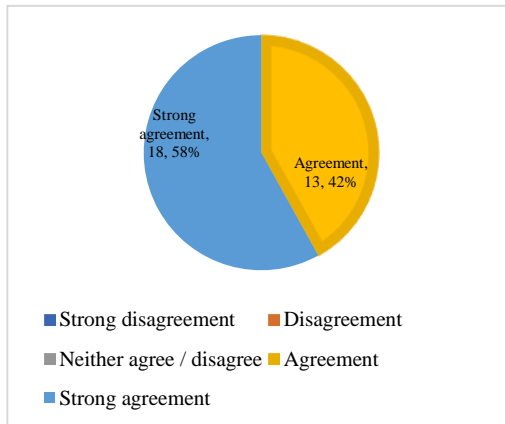


Figure 8. Answers to Item 8: “The use of dynamic games in the development of motor skills is a very effective method”

At the 8th item of the questionnaire that refferes to “The use of dynamic games in the development of motor skills is a very effective method”, the following results have been obtained: 18 teachers (representing 58,1% from the total) had a strong agreement and 13 teachers (representing 41,9% from the total) agreed with the affirmation.

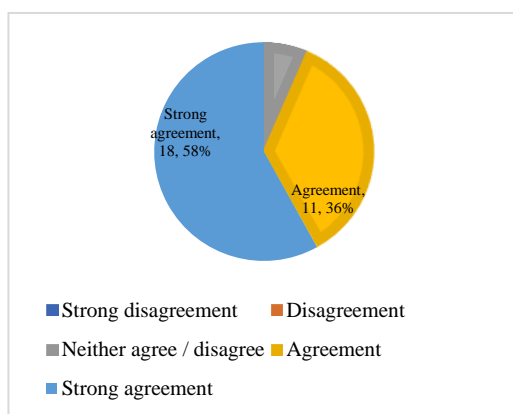


Figure 9. Answers to Item 9: “The use of dynamic games in the development of motor skills is a very effective method”

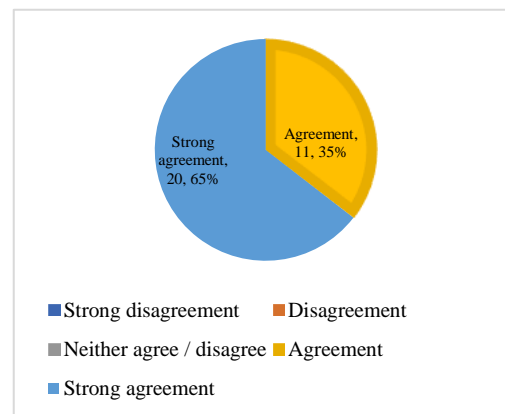


Figure 10. Answers to Item 10: “With the help of dynamic games we manage to increase the attractiveness of PE at the gymnasium level and to achieve the objectives of the lesson much easier”

Regarding the 9th item of the questionnaire that affirms that “Dynamic games specific to sport events and sports develop very important skills being the basis of youth performance sports”,

the following results were obtained: 18 teachers (representing 58,1% from the total) had a strong agreement, 11 teachers (representing 35,5% from the total) agreed with the affirmation, and 2 teachers (representing 6,5% from the total) neither agreed or disagreed with the presumption.

At the last item of the questionnaire that refferes to “With the help of dynamic games we manage to increase the attractiveness of physical education lessons at the gymnasium level and to achieve the objectives of the lesson much easier”, the following results have been obtained: 20 teachers (representing 64,5% from the total) strongly agreed with the presumption and 11 teachers (representing 35,5% from the total) agreed with the affirmation.

DISCUTIONS

The pandemic crisis generated by the COVID-19 infection, created many malfunctions in everyday life of the human being in all activities starting from the medical, economic, transportation, and not the last, the educational system. The classical learning process was affected by the restriction of meeting face-to-face and introducing the quarantine and the obligatorily to stay home. Measures should be taken to prevent or reduce contamination in students at risk in face-to-face education (Mandl, 2020).

The whole education system had to be restructured, and teachers had to find new online solutions for continuing the learning process. Physical Education was one of the most affected from the curriculum discipline, being a predominantly practical activity in which teachers were not accustomed to using interactive electronic means.

School settings provide youth with critical opportunities for physical activity (PA), a key driver of positive physical, social-emotional and mental health among youth (WHO, 2020). However, recent reports document PA-related effects of the COVID-19 pandemic on US school-aged youth, including decreases in PA participation and increases in sedentary behavior during home learning periods compared with prior to the COVID-19 pandemic (Dunton et al., 2020).

Physical education shifted to virtual learning platforms (Webster et al., 2021), physical education teachers and administrators were swiftly required to deliver robust virtual programs without adequate training and provision of appropriate teaching and learning resources. If designed appropriately, online physical education may have the potential to reduce health disparities related to inequitable opportunities for PA engagement (Draper et al., 2021).

Although online resources are already available for educators, they are not sufficient to meet current physical education teacher needs. For example, recent literature determined that “student access to online learning” and “availability of teacher resources” were substantial challenges related to online physical education instruction during the COVID-19 pandemic (Pavlovic et al., 2021). Similarly, Mercier et al. reported that 20% of physical education teachers felt less effective teaching their students online during the pandemic. The authors inferred that teacher responses may not reflect actual learning given that half of the sample did not use assignments or video instruction (Mercier et al., 2021).

The development of fundamental movement skills is a key element of the primary school physical education curriculum. Fundamental movement skills mastery in young children is associated with lifelong physical activity (Holfelder and Schott 2014), better health related fitness (Lubans et al. 2010), and improved physical, emotional, and cognitive development (Piek et al. 2008).

Online teaching is an increasingly used resource in education, even in the case of physical education (Killian et al., 2019), where different studies have reported benefits for students in relation to motivation, achievement involvement or its extracurricular nature (Kooiman and Sheehan, 2015; Kooiman et al., 2016; Osterlie, 2018). However, the teachers’ perceptions are that this format cannot be a substitute for face-to-face meetings with students. Teachers still perceive online teaching as a complementary format for very specific situations (Daum & Woods, 2015),

and justify their opinion describing the difficulty of establishing socio-affective relationships with students (Daum & Buschner, 2012).

CONCLUSIONS

Being a practical activity, physical education and sport, was a teaching domain most affected by nowadays pandemic times, the teaching methods was changed and adapted to online learning.

Dynamic games represent a good alternative and method for online teaching-learning process and consolidating the motor qualities in the physical education lessons. Also, this dynamic game brings joy and happiness starting from young age to the oldest, offering a good way of learning and having fun.

The conclusions of our investigation drawn from the application of the questionnaire with the theme “the importance of learning and consolidating motor qualities through dynamic games in physical education lessons” where the following:

The majority of teachers that answered to the questionnaire agreed that the dynamic games provide the ideal framework for the primary goal of physical education and sport lesson: learning and developing motor skills. Also, other conclusions of the questionnaire are that principles of teaching such as accessibility, continuity, modeling and fundamental learning are fundamental in physical education lessons.

Other conclusions of the research highlighting the idea that dynamic games are an important method of fulfilling the objectives of this kind of activity and that the number of motor skills that students acquire is more important than the level of performance that these skills reach.

In the process of learning the motor skills, the most effective training methods are: explanation, demonstration and practical methods and that the dynamic games, through their playful specificity, form an emulation for students through which they acquire certain motor skills are other presumptions agreed by the majority of teachers.

Also, the use of dynamic games in the development of motor skills is a very effective method and that this kind of exercises develops very important skills being the basis of youth performance sports.

The last conclusion of the research highlights the idea that with the help of dynamic games teachers manage to increase the attractiveness of physical education lessons at the gymnasium level and to achieve the objectives of the lesson much easier.

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