

The effects of curriculum change programs in physical education according with the hours of teaching on the fitness level of children

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Published online: February 28, 2023

(Accepted for publication February 15, 2023)

DOI:10.7752/jpes.2023.02068

Abstract:

Introduction: the experts focused to improve the school curriculum of Physical Education, which is essential in the development of physical fitness in this age group of children. **The aim:** the purpose of this study is to determine if the program with more educational duration from Physical Education among children in three cities from different regions and the differences between them according to physical fitness. **Material and methods:** The study sample of 100 children were from children are from Pristina who follow Physical Education with 90 minutes of lessons, then 100 children from Presevo who follow Physical Education with 90 minutes of lessons, plus 45 minutes of sports activity as an elective subject, and 100 children from Struga who attend Physical Education with 135 minutes of lessons. All are evaluated with EUROFIT. **Results:** Based on the results of the basic statistical parameters in this study, we see that the children who followed the Physical Education curriculum of 135 minutes showed better results in expository strength, repetitive strength, and balance. As well as based on the univariate analysis of variance (ANOVA) for the three groups, we have significant statistical differences in the indicators of expository strength, repetitive strength, and balance with significant values at the 0.000 level, therefore even through according to the post -host of the Scheffe's model, differences $p < 0.05$ have been presented in the indicators of physical fitness. **Conclusion:** the children who have followed the program for 135 days within a week, the results are in favor of the children in the indicators of explosive strength, repetition strength and balance, as well as differences between children from three cities from different regions have been presented.

Key Words: physical education; fitness level; different programs; children; teaching hours.

Introduction

In responsibility Physical education as a school, the subject has an important role in the school curriculum and the education system (Alexia et al., 2016), but in particular, the importance of this subject is that through it the level of physical fitness is raised with the aim of obesity and overweight prevention among genders and ages (Leskošek et al., 2007). Therefore, physical fitness is a very important indicator of health both in children (Morina et al., 2021) and also between the sexes (Tong et al., 2022). Research shows that the physical fitness of children can affect the physical fitness of adults at a later age (Tong et al., 2022) and whatever physical fitness can be assessed through specific motor skill indicators (muscular strength, speed, agility, balance, coordination, flexibility, and cardiorespiratory fitness) widely recognized as health-related PF (HRPF) components. All of them can be evaluated by means of simple, standardized, and reliable physical tests, such as the Eurofit battery tests, developed for school-age children and applied since 1988 (Xia et al., 2021; Lee et al., 2021). Although it is worth emphasizing that physical fitness is partly determined genetically, it can nevertheless be greatly influenced by environmental factors, mainly in the form of physical exercises (Trajkovski et al., 2014). But, to provide a good model of development, a well-structured program of Physical Education should be provided in schools (Tabacchi et al., 2019; Džakula et al., 2020). Many authors have emphasized that the structured program of Physical Education is more efficient than free activities (Milanovic et al., 2019). Also, additional physical education is important, which helps to increase the physical fitness of children who follow a structured and organized program at school (Battaglia et al., 2019; Groffik et al., 2020). Of special importance in pre-university education, would be the increase in the number of teaching hours as per the rules, the country (Frömel et al., 2016), and the geographical inclusion of the organization of the lesson (Jarani et al., 2016) are also important. Curricular changes in PE must be adapted to changes in the educational system, age, and characteristics of children. Unfortunately, trends in the evolution of the educational system are not reflected in the dynamics of curricular changes and are not adapted to the specifics of PE and the educational evolution of children (Zhou et

al., 2019; Hollis et al., 2017). For this reason, we consider the topic addressed in this article current, to understand the significant statistical differences between the groups that have followed physical programs, changes in physical education and the development of motor fitness in children. Physical Education programs that are designed with the work format, good and new practices and attractive teacher model, are considered as a very efficient tool to positively influence children's health and physical fitness. Children were an overwhelming part of the direct effect of increased motor performance, through physical ability directly attributable to a good portion of physical health. Moreover, the decline of participants in physical activities during childhood and adolescence is assumed to be due to the lack of adequate Physical Education programs applied by teachers (Rus et al., 2019; Alpaslan et al., 2017). One of the other indicators is the number of steps (Rus et al., 2019; Alpaslan et al., 2017) children and teenagers reach 11,000 steps in one day (Rus et al., 2019; Oh et al., 2019), while for a 100-minute lesson in Physical Education, 5,000 steps are reached within an hour, so if within a lesson 50% of the time the child is active and effective in the lesson, then he should reach 2500 to 3000 steps within the lesson (Wassenaar et al. 2019). For this reason, it should be noted that in their study the authors from Kosovo have proven differences between teenagers living in Montenegro and Kosovo, in tests of physical fitness and motor performance, where these data can continuously contribute to the development of different curricula of Physical Education in general, and of health in particular. Therefore, the current study examined the possible difference between three entities with different programs of physical education and level of physical fitness in school-age children. Likewise, the results of this study will be able to contribute to and improve the level of physical fitness based on Physical Education programs. Therefore, some general trends in Physical Education can be identified, which are an integral part of compulsory education in European countries, as well as in Kosovo, Presevo Valley, and North Macedonia. The main aims of this study were: (1) to identify the differences of teaching programs in Physical Education on the basis of the number of teaching hours, (2) to identify whether there are significant statistical differences between children in fitness tests according with the number of teaching hours.

Material & methods

Study design

The study was carried out during the 2021-2022 school year including 300 students from three regions and names: Pristina, Presevo, Struga. The students included in the study completed the entire program of physical education (PE) lessons with different programs adapted to the specifics and particularities of the different classes. Inclusion criteria: clinically healthy, fit for physical exertion, age range between 13-15 years, full completion of the school program in the discipline of physical education. Exclusion criteria: medical exemptions, exceeding the age limits, injured, failure to complete the school program, failure to complete the fitness tests specific to the study. Also, the study has ethical approval, was in accordance with the Declaration of Helsinki on Biomedical Investigations with Humans (WHADH, 2000). All participants were also asked to sign a statement stating that these participants were part of the research voluntarily and that their physical and motor data would be used for research purposes only.

Participants

In this study, the research was carried out with 300 children. In this case, we have selected the children who followed Physical Education according to different curricula based on some other research that we have consulted and we have managed to carry out our research. The selection of the sample in this study was random, except as a criterion that these children participating in this research should follow Physical Education with different curricula, namely the number of minutes developed within the hour should be different. In this case of the research, the children during the follow-up test had a reflection before the start of the test protocol on the indicators of physical fitness, also the sample of participants in this research that we have selected as representative of the basic aims of this study which we took him in for treatment. In this research, for each city, 100 children were included, the children who follow the Physical Education program in the city of Pristina who follow Physical Education with 90 minutes of lessons, while children is from the city of Presevo who follow Physical Education with 90 minutes of lessons, plus 45 minutes of sports activity as an elective subject, and children from the city Struga who attends Physical Education with 135 minutes of lessons. Where it was stated that we are part of the voluntary research and that our physical fitness and motor component data will only be used for study purposes, and in no other way will their data be used for any purpose other than the realization of the research. It should be emphasized that all the children were from the urban areas of the cities that we selected, and also that they all belonged to the male gender. In the Tabel 1, we presented the height and body mass level, teaching hours and age of the subjects of study.

Table 1. Number of participants, height, body mass, minutes per class, and age

	Duration 90 minutes	Duration 90+45 minutes	Duration 135 minutes	Total
	Mean \pm Std. Dev.	Mean \pm Std. Dev.	Mean \pm Std. Dev.	Mean \pm Std. Dev.
Body Height (cm)	158.22 \pm 11.59	161.15 \pm 9.70	160.75 \pm 8.91	160.178 \pm 10.19
Body Weight (kg)	47.35 \pm 10.78	54.43 \pm 12.22	54.53 \pm 13.60	52.16 \pm 12.74
Hours of teaching	90 minutes	90+45 minutes	135 minutes	
Age (years)	14.3	14.0	14.1	

All values are means \pm Std. Dev

Test protocol:

In this case of selecting the test protocol, physical fitness measuring instruments were selected. Which is in the form of motor components. The children participating in this research were included in 6 physical fitness tests, in which below we will give a detailed description of the realization and execution of each test separately.

Explosive strength assessment – we selected two tests for the evaluation of explosive strength were: standing long jump (SBJ) and vertical jump (VJT) following the described protocols (Oh et al., 2019). These two tests assess the expository strength of the lower limbs. The measurement of the standing long jump (SBJ) is that from a starting line, feet shoulder-width apart, the child is asked to jump over a metric tape as far as possible from the starting line, then they must place both feet without falling back (it is not allowed to place their hands on the floor). In this case, the best result measured in centimeters is noted and it is recorded in the child's registration sheet in centimeters (Farmer et al. 2017, Handbook for the EUROFIT Tests). The measurement of the vertical jump (VJT) from the place is to place a metric tape on the wall or a board, first, the child must raise his hand high and then make a vertical jump with both feet with a touch of the metric bar. The result is recorded between the touch and the touched site in centimeters and recorded on the child's record sheet in centimeters (Farmer et al. 2017, Handbook for the EURO FIT Tests).

Speed assessment - speed assessment was performed using the Run for 20 meters (S20) sprint test, according to the described protocol (Farmer et al. 2017, Handbook for the EURO FIT Tests). 20 meters run (S20) in this case the child starts running from the start with then with acceleration and reaches the destination at maximum speed. All participants underwent the test three times. All participants underwent the test three times, with repetitions and breaks in between for statistical analysis to obtain the best result. The test involved running at maximum speed for a distance of 20 meters. The result is recorded on the child's record sheet for 0.1 seconds (Farmer et al. 2017, Handbook for the EURO FIT Tests).

Assesment of repetitive strength - This includes two tests in the evaluation of repetitive strength,, such as sit-up test for 30 seconds (Sit-Up) and push-ups test for 30 seconds (Push-ups). In this case, the tests measure the flexibility of the abdominal, thigh, and arm muscles (Frömel et al., 2021). Sit-ups test for 30 seconds, the child sat on the felt and repeated the movement until the 30 seconds are over, in this case, the result is recorded on the sheet of the child records how many repetitions are done in 30 seconds. Push-ups test, the child on his hands does squats and lifts until 30 seconds are up, in this case, the result is recorded on the child's record sheet of how many repetitions were done in 30 seconds (Farmer et al. 2017, Handbook for the EURO FIT Tests; Frömel et al., 2021; Latorre-Román et al., 2018).

Assesment of static balance - This ability was measured with the Flamingo Balance test, standing with one leg on a low beam. In the Flamingo test the subject stands upright with his or her legs fully extended on a special wooden beam. The timer helps the participant into the correct position and the child holds one broken leg at the knee and the opposite hand with the knee extended forward. The time is measured when the subject released the timer hand in 0.1 seconds. the result is recorded on the child's record sheet as how many repetitions are done in 30 seconds (Farmer et al. 2017, Handbook for the EUROFIT Tests; Frömel et al., 2021). The protocol of tests selected for the assessment of physical fitness in children is standard tests from which many studies have been done.

Before conducting this study experiment, the researchers of this paper in this project received the training part of the staff engaged in testing and measurements. Separate instructions, descriptions, and demonstrations of the physical fitness testing protocol testing procedure are also provided. Also to guarantee the standardization, validity, and reliability of the tests that were measured according to the EUROFT test approved by the European Council (Frömel et al., 2021; Latorre-Román et al., 2018), also in this case of the testing protocol the validity and reliability of each test are very high based on studies of the authors who have practices and applied these tests (Mancini et al., 2022).

Research procedures and design

In this case, three groups were taken for study who attended Physical Education programs with different hours and who were previously informed about participating in the research. These children have attended various programs in Physical Education, Sports, and Health. First, it should be emphasized that this research is a study as the starting point of larger research in which more evaluation and testing spaces will be included. In this case, we have identified only the Eurofit test battery to identify the level of physical fitness based on programs with different teaching hours.

The selection of tests for research that we have selected was the result of many kinds of research that have been carried out with this testing protocol, and also we have developed testing on a normal and standard basis of the testing protocols that we have selected (Kemper et al., 1996). In this case, we took for research children from three different cities with different Physical Education curricula, and also with different minutes, according to what was developed within the Physical Education subject.

Table 2 Duration in minutes, programs from three different countries and regions

Parameters	Duration 90 minutes	Duration 90+45 minutes		Duration 135 minutes
-	Various professional services	Physical fitness	Mini football	Free exercises and games
-	Anthropometry and physical fitness	Physical fitness, Sports and Sports Disciplines (Athletics)	Other activities planned with the program of the Council of Experts	Athletics
-	Rhythmic and sports gymnastics	Sports Gymnastic		Rhythmic gymnastics
-	Athletics and other sports	Team basics and sports games		Dance
-	Team sports	Dance and rhythmic		Dance-Modren
-	Malnutrition and dehydration	Sweming		Sports games (Football, Basketball, Volleyball and Handball)
-	The influence of addictive substances	Education Health		Table tennis
-	Field	Testing and measurement		Learning topics and contents which are realized in agreement with parents (<i>Swimming, Skiing, Picnic, School sports, Mountain sports, Roller skating, Bicycling, Mini tennis, Badminton, Skating</i>).
Number of hours per week	2 teaching hours	2 teaching hours	1 teaching hours	3 teaching hours
Duration number	Duration 90 minutes	Duration 90 minutes	Duration 45 minutes	Duration 135 minutes
Number of hours per year	74 teaching hours	74 teaching hours	37 teaching hours	108 teaching hours
Duration number for one year	Duration 6,600 minutes	Duration 6,600 minutes	Duration 1,665 minutes	Duration 14,580 minutes

In the Tabel 2, the duration of the lessons in minutes for three different countries and regions is shown, in Pristina (KK, 2016) the duration of the lesson of Physical Education, Sports and Health is held with a duration of 90 minutes, then in Presevo (de Bruijn et al., 2019) have conducted lessons of Physical Education as a school subject with a duration of 90 minutes and with a duration of 45 minutes Mandatory optional sport within the curriculum, and from Struga (KK, 2016) the lesson was attended with a duration of 135 minutes.

Statistical analysis

Data analysis is performed using statistical software version SPSS_IBM 21.0. The analysis of the results has been prepared based on statistical data, namely the leading methods which help the best reflection of the results separately for each group and sub-group. The data have been processed by methods, the first will be the basic statistical parameters which will be the arithmetic mean (Mean) and the standard deviation (Std. Dev.) for the groups separately. Analysis of univariate variances (ANOVA) will confirm statistically significant differences between groups. In this case, we have four groups to apply we have selected the appropriate statistical methods to prove significant differences between groups. In this case, we will apply univariate analysis of variance (ANOVA) with the test of homogeneity of variance between groups. Post-host analysis with Scheffe's adjustment, the comparisons between the first group, the second group, and the third group are presented with a significant value of .05. as independent variables.

Results

According to the data presented in Table 3, look appropriately that we have distinguished in the outcomes of your children attending the program to change the lesson. Children from Pristina have shown the best values of standing broad jump, then come the children from Struga and then finally come the children from Presevo. In the vertical jump test indicators, children from Struga showed significant performance in comparison with children from Pristina and Presevo. The best results of children from Pristina are only with sprint tests run for 20 meters, but in other cities such as Struga and Presevo have shown lower values. The sit-up test indicator for 30 seconds showed better values of sit-up performance compared to children from Presevo and Pristina. Also in the push-ups test for 30 seconds the children from Struga showed the best results, then the children from Pristina and

finally the children from Presevo. Also in the flamingo balance test were presented children from Struga with a significant result compared to children from Presevo and Pristina.

Table 3. Parameters motor ability.

Variables	No.	Pristina		Presevo		Struga	
		Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev
SBJ	300	168.870	8.954	162.610	18.918	167.310	23.398
VJT	300	28.350	5.005	28.747	7.701	36.050	7.012
S20	300	3.478	.292	4.026	.340	4.008	.435
Sit-ups	300	19.400	.864	19.180	4.293	22.440	4.916
Push-ups	300	16.300	5.791	14.910	6.992	22.440	8.687
Flamingo Balance	300	15.377	4.452	17.127	8.239	20.618	18.741

SBJ - Standing long jump test; (SBJ), VJT - Vertical jump test; S20 – 20 meters Run sprint test; Sit-Up - Sit-up test for 30 seconds; Push-ups - Push-ups test for 30 seconds; Sted. Dev- Standard deviation.

Descriptive data of the results are presented in Table 4 with the main results of this study with significant differences between groups. The first group is the children from Pristina who attend 90 minutes of physical education, then the second group from Presevo who attend 90 + 45 minutes of Physical Education lessons, and the third group is from Struga who attends 130 minutes of Physical Education (Tabel 4).

Table 4. Basic parameters of Physical Fitness indicators

Test	Total	Duration 90 minutes	Duration 90+45 minutes	Duration 135 minutes	ANOVA	Post hoc comparison Scheffe's					
		Mean±Std Dev	Mean±Std Dev	Mean±Std Dev		Mean±Std Dev	1		2		3
					p	2	3	1	3	1	2
SBJ	166.26±18.25	168.87±8.95	162.61±18.91	167.31±23.39	0.041						
VJT	31.04±7.53	28.35±5.00	28.74±7.70	36.05±7.01	0.000	*	*	*	*	*	*
S20	3.83±.44	3.47±.29	4.02±.34	4.00±.43	0.000	*	*	*	*	*	*
Sit-ups	20.34±4.07	19.40±.86	19.18±4.29	22.44±4.91	0.000	*	*	*	*	*	*
Push-ups	17.88±7.93	16.30±5.79	14.91±6.99	22.44±8.68	0.000	*	*	*	*	*	*
Flamingo Balance	17.70±12.25	15.37±4.45	17.12±8.23	20.61±18.74	0.008	*	*				

Arithmetic mean (Mean); Standard deviation (Std. Dev); SBJ - Standing long jump test; (SBJ), VJT - Vertical jump test; S20 – 20 meters Run sprint test; Sit-Up - Sit-up test for 30 seconds; Push-ups - Push-ups test for 30 seconds; p - level of significance; * -significant differences $p < 0.05$; 1- group of Pristina; 2- group of Presevo; 3- group of Struga

In this case, we see that we have differences in the results of physical fitness tests between children with different programs of Physical Education (Tabel 4). The test of physical fitness standing long jump to the Pristina group dominates with results of 168.87±8.95, then the group of children from Struga with the lowest result, and finally the children from Presevo, significant statistical differences were presented in the ANOVA with a value of 0.041, while with post hos we have no significant statistical difference with the groups.

In the High jump test, children from Struga dominated the country with a score of 36.05±7.01, then children from Presevo, and finally children from Pristina. Statistically significant differences in ANOVA with a value of 0.000, while with post host there were differences among themselves, such as the group from Pristina has a difference with the group of Presevo ($p < 0.05$), then Presevo with the group of Pristina and Struga with a value of ($p < 0, 05$) and the group from Struga has differences with the group from Presevo with a difference between the groups ($p < 0.05$). The 20-meter Running test was dominated by the children from Pristina, then the ones from Struga, and finally the children from Presevo, significant differences are in ANOVA with a value of 0.000, while with post host there is a significant difference between the group of Pristina and the group of Presevo and Struga with a value ($p < 0.05$), then the group of Presevo with the group of Pristina with a value of ($p < 0, 05$) and the Struga group has a difference only with the group from Pristina ($p < 0.05$). The sit-ups test dominated the performance in the group of children who followed the 135-minute program with a result of 22.44±4.91, the significant differences are in the ANOVA with a value of 0.000, while in the post-host they have a value between the groups ($p < 0.05$). The push-up test has a higher value in favor of children who follow the program with a duration of 135 minutes with a value of 22.44±8.68, the significant differences are in the ANOVA with a value of 0.000, while in the post-host they have a value between the groups ($p < 0.05$). The Flamingo test has shown a dominant value in children who follow the program lasting 135 minutes with a result of 20.61±18.74, the significant differences are in the ANOVA with a value of 0.008, while in the post-host we

have a difference only between those who followed the program with a duration of 90 minutes and those with a duration of 90+45 minutes, as well as in the other group, significant differences were presented ($p < 0.05$).

Table 5. Test of homogeneity of variances

	F	df1	df2	Sig.
SBJ	41.598	2	297	0.000
VJT	4.290	2	297	0.015
S20	5.730	2	297	0.004
Sit-ups	47.363	2	297	0.000
Push-up	6.180	2	297	0.002
Flamingo Balance	21.891	2	297	0.000

SBJ - Standing long jump test; (SBJ), VJT - Vertical jump test; S20 – 20 meters Run sprint test; Sit-Up - Sit-up test for 30 seconds; Push-ups - Push-ups test for 30 seconds; F- the assumption of homogeneity of variances, df-degrees of freedom, Sig.-Significance $p < 0.05$.

The assumption of homogeneity of variance for the physical fitness test was applied to all the tests listed in Tabel 5. In this case, all results will be interpreted separately, in this case we test the hypotheses of all variables for independent samples having the same variance. All indicators had values of homogeneity of variance (SBJ $p < 0.000$; S20 < 0.004 ; Sit-ups $p < 0.000$; Push-up $p < 0.002$; $p < 0.000$) were distributed normally. While (VJT $p > 0.015$) lower value of homogeneity of variance

Discussion

In the findings section of this paper, we will focus on reflecting on the main findings of this study. In our aim, we have the effect of different Physical Education programs based on some physical fitness tests, so we consider these results that have emerged from the study can contribute to the expansion of knowledge to make necessary changes in the education curriculum physical in the country of the Western Balkans, respectively in Kosovo. Statistically, significant differences are presented in all indicators that have significant differences between groups with curriculum change programs. Therefore, from this, we can estimate that children with different curricula have shown significant differences during the implementation of the 135-minute program, but the motor performance tests that followed 90 minutes have been more effective. Therefore, for our main findings, we will focus on two basic points, such as the presentation of our results, the comparison between ourselves with groups that have been elaborated on above, then a comparison with the results and other field research according to age.

In this case, we will examine the results related to the physical fitness tests based on the groups presented above for each test separately. It has been proven in this case study that children who follow a well-structured program of Physical Education and with minutes during lessons show better physical fitness performance, in this support also in the study. If we look at the standing long jump, the children from the Pristina group have better values than the children from Struga and Presevo, while the children from North Macedonia have shown better results than the results of our groups (Goncharov et al., 2016), yes as well as in the study of another sample of participants in another study, they showed lower results than our result (Morina et al., 2021), both in Kosovo and in Montenegro.

However, if we take for comparison with children from Spain, we see that we have more favorable results compared to them (Castro-Piñero et al. 2009) at the same age. In the vertical jump test, the children from the Struga group showed better results in speed, while the children from Pristina showed lower results. If we take other studies for comparison, we see that our results have shown better speed values (Marta, et al., 2019), while other Cypriot children have shown weaker results (Parpa et al., 2022). In the 20-meter running test, if we compare the results between the groups, we have significant changes in the results in favor of the Pristina group, which in this case shows that the running speed according to the results between the groups compared to the total amount has a marked difference with the children from Pristina. Moreover, it should be emphasized that if we take for comparison the children we have taken for the study, they have shown better results about children (Fjørtoft et al., 2011), while the other study they have shown lower results (Abarghouejad et al., 2021).

According to the data from the results of the sit-ups test, we see that the data are expressed in favor of the group of children from Struga, but if we look at them in general terms, the results are similar between the groups separately as well as with the total values. Therefore, in this case, it has been shown that the results have a higher average than the children from another study (Andrade et al., 2014), it is emphasized that the results of the children we have evaluated have a good value compared to the children from another study (Morina et al., 2021). In the Push-up test, we have significant results between the related groups, it should be noted that the total values of the whole group are much lower than the values of the group of children from Struga who follow the 135-minute educational program. Therefore, these drastic results between these two groups suggest that children who follow a curriculum with more minutes have shown better performance in physical fitness tests.

However, the values of the Push-up test have shown a result between the groups determined in this study. In the case of this test, it was noticed that the children from another study showed lower results (Venckunas et al., 2018) than the children who were part of our study. It should also be emphasized that the data according to

the group of children from Struga have shown identical values with the study (Czyż et al., 2017), while other groups have shown low values. The Flamingo test showed significant results between the groups determined separately, the group of children from Struga showed that they had better results than the other groups, also the total group showed that there was a lower level relative to the top group, the best. Moreover, our group showed better values compared to the group of children from the author's study from Romania (Pășslaru et al., 2022), and the children of the other group also showed lower values compared to the group we took for the study (Fathirezaie et al., 2022).

From the point of view of understanding the history of PE, some similar changes can be verified in the concept of Physical Education caused by the influence of attention on the growth of concepts and the establishment of the most qualitative PE programs (MacLean et al., 2015). However, the process of time devoted to games, athletics and gymnastics comprise over 70% of the content of the physical education curriculum in pre-university education, and it is also ensured that there is a constant predisposition to develop new programs that help to link of sport and performance in learning (MacLean et al., 2015).

If we take for comparison, we see that children in primary and lower secondary education in the state of Albania have up to 135 minutes of activity per week, while in higher secondary education up to 138 minutes per week (MacLean et al., 2015), while if we take for comparison the number of lessons of Physical Education in Kosovo for primary and lower secondary education with 90 minutes, while in upper secondary education the same number of minutes, while in North Macedonia you have 135 minutes in primary and lower secondary education and also in higher secondary education.

However, if we look at the distribution of hours according to the curriculum in recent years, we have a drop of 17% (60), but the new contemporary trends in the development of the Physical Education curriculum in pre-university education are going to add minutes of at least 120 minutes in week (De Dieu Habyarimana et al., 2022; Ericsson, I., 2019). In most countries of Europe, there was a gradual erosion of the distribution of teaching time in Physical Education throughout the 20th century (De Dieu Habyarimana et al., 2022; Ericsson, I., 2019; Bardid et al., 2021). According to a study carried out in 2006, there is a wide gap between education policies and teaching practices in education (Kirk, D., 2010), but in upper secondary education there is an important demand to move from 2 hours of teaching per week to 3 teaching hours (Burns et al., 2017.). Studies also show that the Physical Education lesson organized with exercises have shown a better effect in improving the lesson than in those lessons that are based on the game in the development of physical fitness and cardio-respiratory skills (Delgado-Floody et al., 2019; Logan et al., 2014).

According to the recommendations and suggestions of the documents of the European Union, if we refer to the amount of hours of Physical Education at school, it should be at least 3 hours per week (Morina et al., 2021; Dawes et al., 2016), in some countries there is a lot of problem with the legal arrangement and also with the planning of school curriculum of pre-university education for increasing the number of hours of physical education within a teaching week at school (Buzios et al., 2022). It should be emphasized that physical inactivity causes an increase in overweight and obesity in children and adolescents as a result of not participating in motor and physical activity in the Physical Education class from the primary level (Galan-Lopez et al., 2022; Clark et al., 2021), and also skipping the class physical education lessons, there is no doubt that the small number of physical education lessons also affects these components of the child's improper development (Silventoinen et al. 2021, Badau et al. 2010).

The strengths of the study were: the large number of students included in the study, the analysis of three groups from three different cities in Balkans, the number of fitness tests analyzed, the quantification of the number of hours of teaching physical education, the identification and analysis of differences regarding the fitness level of children depending on the number of hours of teaching physical education. The limits of the study: the comparative analysis of only the groups of students from the 3 selected cities without including other groups from other localities or regions, there was no differentiation according to gender in the results of the fitness tests, no comparison was made with other Balkan states.

Conclusions

Therefore, the results of this study can contribute to the development of children who follow the curriculum with 135-minute training programs showed better results in explosive strength, repetitive strength and balance. As well as based on the univariate analysis of variance (ANOVA) for the three groups, we have significant statistical differences in the indicators of expository strength, repetitive strength and balance with significant values at the 0.000 level, that is, according to the post-host of the Scheff model, in indicators of physical ability are presented with significant differences of statistical at $p < 0.005$.

However, the findings and results of this study will be able to help plan activities by helping to determine the level of physical fitness in children.

Conflicts of interest - The authors declare no conflicts of interest.

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