

**STUDY CONCERNING DEVELOPMENT OF THE DRIVING
SKILL STRENGTH BY USING APPLICATIVE AND UTILITIES
SKILLS AT THE PRIMARY SCHOOL PUPILLS**

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Abstract: In physical education programs for this group of skills is expected to be acquired in preschool and primary school, followed the other classes to be perfected within relays, games and applications routes or by repeating them as exercises aimed at developing driving skills. In developing our approach we started from the hypothesis: if we use the utilities and applicative skills exercises for developing strength in primary school will achieve its development objectives set at optimal parameters in physical education class. The pedagogical experiment was conducted on an experimental group of 15 pupils of 4th class at School no. 3 Marginea in 2014-2015 school year. There has been progress in each tests, and subjects demonstrated at the final testing, a good strength development, having opportunities to improve individual results.

Introduction

The curriculum for grades I-IV aims to present activities that help the child to form and to differentiate the general direction and control of movement organized to be able to channel the energy of the place and time, preventing consciously directing these forces to violence.

In physical education programs for this group of skills is expected to be acquired in preschool and primary school, followed the other classes to be perfected within relays, games and applications routes or by repeating them as exercises aimed at developing driving skills.

In childhood period is recommended to develop the combination of strength and speed by using natural exercises such as pushups, squats, jumping on one leg and both feet, jumped step, skipped step.

At primary level in I and II grades, will work to develop segmentary dynamic strength, along with the formation of utilities applicative skills involving and working to strength (crawling, climbing, climbing, pulling, pushing, transport weights, applicative paths). In III grade will continue with the development of dynamic strength with their own body weight, along with training and strengthening utilities and applicative skills. For IV grade longer provides development of the general strength and explosive strength.

Material method

In developing our approach we started from the hypothesis: if we use the utilities and applicative skills exercises for developing strength in primary school will achieve its development objectives set at optimal parameters in physical education class.

The purpose of research is to determine the level of strength development at primary school by using structures of exercises from the utilities and applicative skills.

In conducting the research have been used a number of control tests to assess the level of strength development at primary school: trunk lifting (dorsal) in 15 seconds, legs lifting in 15 seconds, trunk lifting (facial) in 15 seconds, complex structure of strength, standing long jump, trunk extensions from a sitting position with hands obliquely in 15 seconds.

The pedagogic experiment was conducted on an experimental group of 15 pupils of 4th class at School no. 3 Marginea in 2014-2015 school year.

Results and discussions

After processing statistical and mathematical data were obtained the following results to (Tables 1 and 2).

	Trunk lifting (dorsal) in 15 seconds (no. repetitions)	Legs lifting in 15 seconds (no. repetitions)	Trunk lifting (facial) in 15 seconds (no. repetitions)	Complex structure of strength (no. repetitions)	Standing long jump (m)	Trunk extensions from a sitting position in 15 seconds (no. repetitions)
Average	12.84	14.78	14.66	11.03	1.3628	13.69

Median	11.50	15.00	15.00	11.00	1.3000	14.00
Modul	11	15	15	9	1.30	15
Standard deviation	3.530	1.791	2.194	1.875	.13436	1.925
Coefficient of variability	12.459	3.209	4.814	3.515	.018	3.706
Minimum	7	12	10	8	1.15	10
Maximum	20	18	18	14	1.70	17

Tabelul 1 Statistical indicators at initial testing

	Trunk lifting (dorsal) in 15 seconds (no. repetitions)	Legs lifting in 15 seconds (no. repetitions)	Trunk lifting (facial) in 15 seconds (no. repetitions)	Complex structure of strength (no. repetitions)	Standing long jump (m)	Trunk extensions from a sitting position in 15 seconds (no. repetitions)
Average	13.59	15.63	15.47	11.81	1.3778	14.31
Median	13.00	15.00	16.00	12.00	1.3400	15.00
Modul	11	15	16	12	1.30	15
Standard deviation	3.518	2.181	2.300	2.416	.13902	1.731
Coefficient of variability	12.378	4.758	5.289	5.835	.019	2.996
Minimum	7	11	11	8	1.15	11
Maximum	20	20	19	16	1.71	17

Tabelul 2 Statistical indicators at final testing

Following the completion of the research we took the analysis and interpretation of data obtained; this being carried out on control tests applied to the subjects:

- Trunk lifting (dorsal) in 15 seconds

Average of group was 12.84 repetitions at the initial testing, and at the final value increased by 0.75 to 13.59 repetitions (Figure 1). Between the two tests standard deviation values (3,530 and 3,518) and the coefficient of variability remained relatively constant (12.459% and 12.378%). Minimum and maximum values obtained for the subjects ranged from 7 to 20 repetitions in both testings.

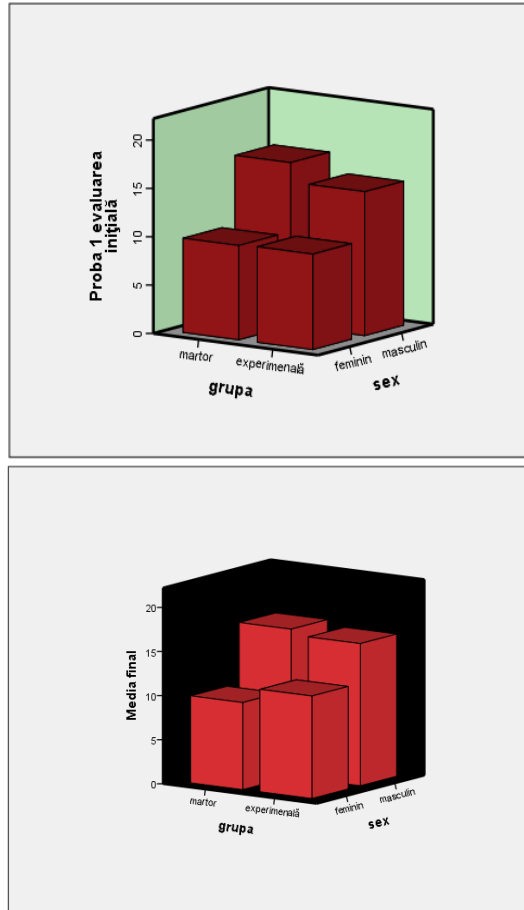


Figure 1 Evolution at the Trunk lifting (dorsal) in 15 seconds between two testings

- Legs lifting in 15 seconds

To the second test the progress was 0.85 repetitions from 14.78 at the initial testing to 15.63 at the final testing (Figure 2). The individual values were in the range of 12 to 18 at the initial testing and the between 11-20 at the final testing. In terms of values standard deviation (1.791 and 2.181) and the coefficient of variation (3.209% and 4.758%) there

were small variations between the two tests, which however did not affect the homogeneity of the group.

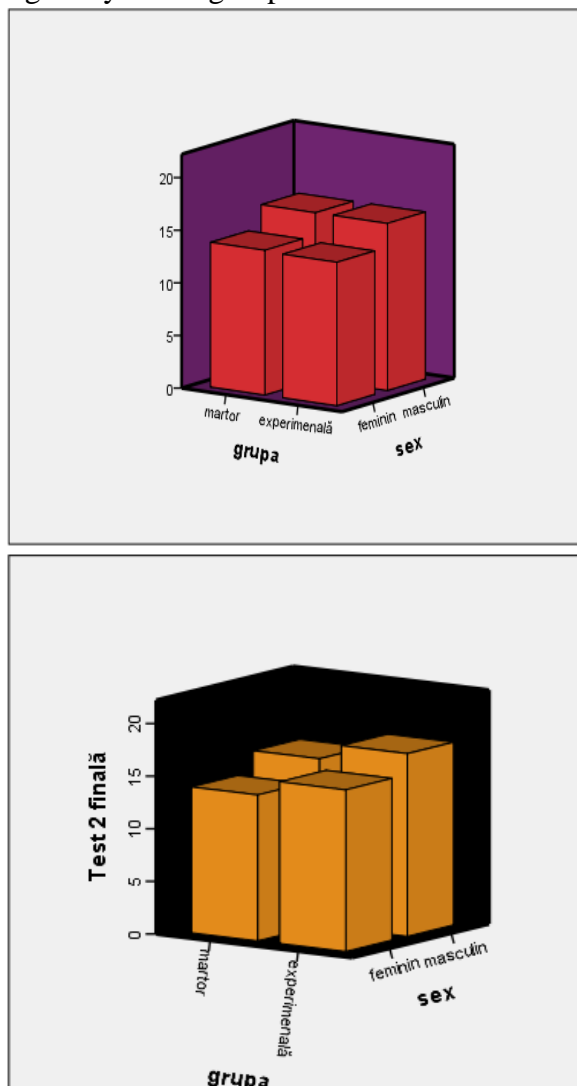


Figure 2 Evolution at the Legs lifting in 15 seconds between two testings

- Trunk lifting (facial) in 15 seconds

It went from an average of 14.66 repetitions at the initial testing and achieve an average of 15.47 repetitions at final testing, the group progress being 0.81 (Figure 3). Variability coefficient values and standard deviation showed no significant variation between the two tests, and individual results were in the range of 10 to 18 initial testing, respectively 11-19 at final testing.

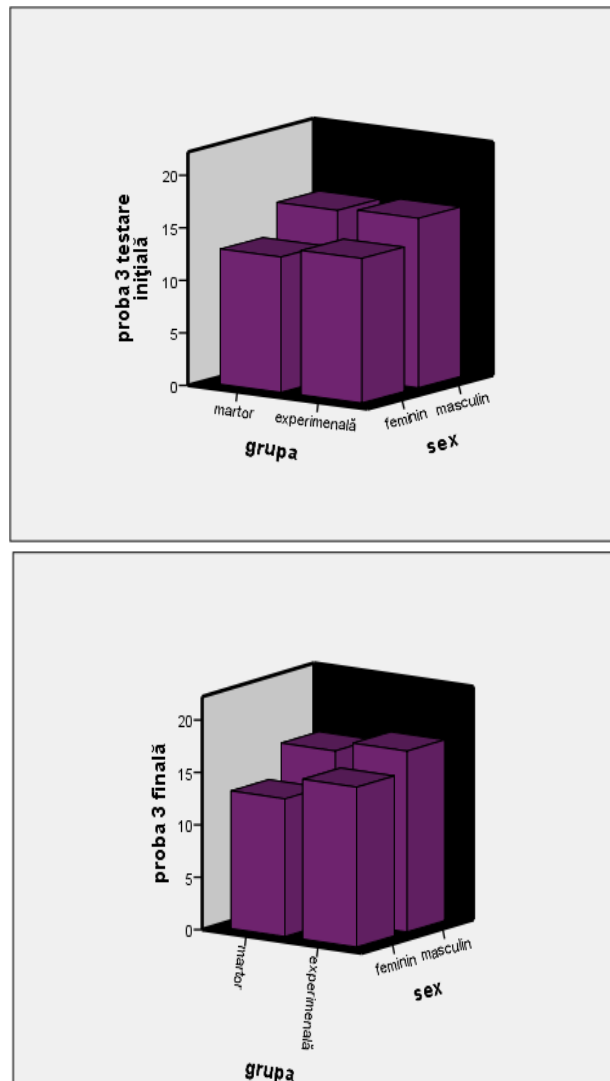


Figure 3 Evolution at the Trunk lifting (facial) in 15 seconds between two testings

- Complex structure of strength

This sample has meant performing a complex exercise of strength being counted repetitions performed. At initial testing the average was 11.03 repetitions, and at the end 11.81 repetitions, group progress being 0.78 repetitions (Figure 4). Regarding the individual results obtained it is between 8 and 14 repetitions at initial testing, ie between 8 and 16 at final testing.

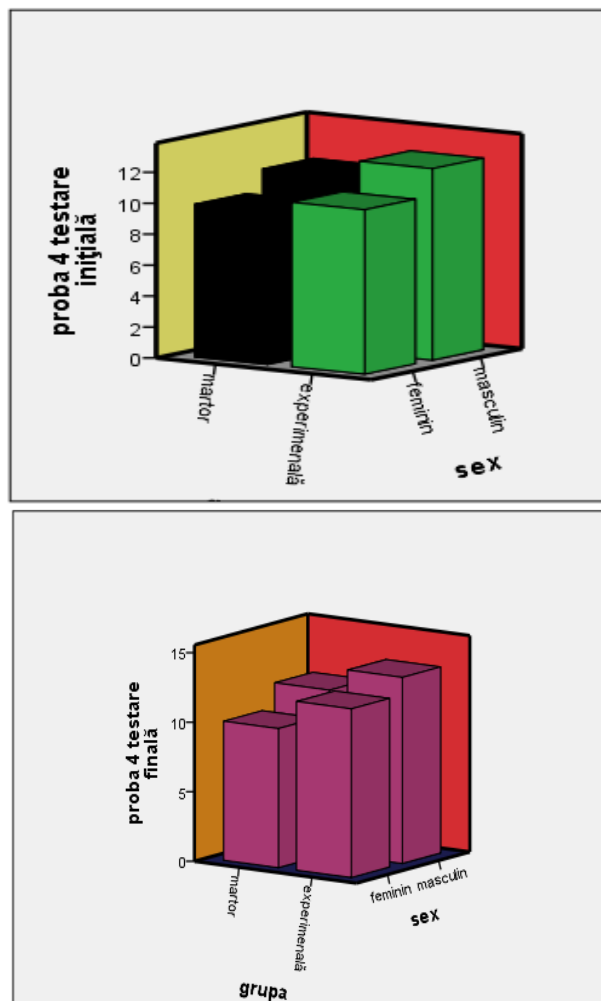


Figure 4 Evolution at the Complex structure of strength between two testings

- Standing long jump

It was the test were achieved a 2 cm progress between the two testings, from 1.36 m to 1.38 m; individual results are in the range of 1.15-1.70 m at initial testing and between 1.15-1.71 m the final testing (Figure 5).

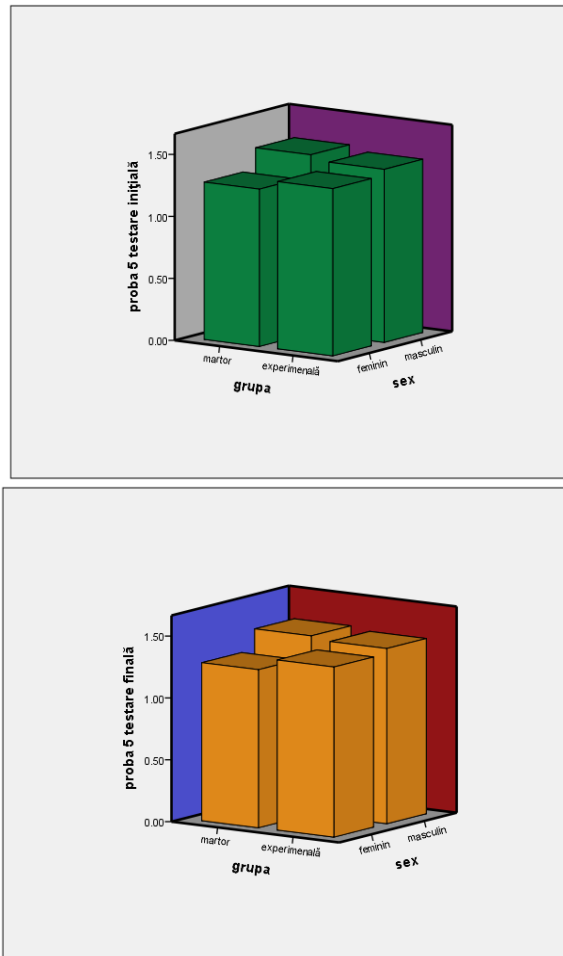


Figure 5 Evolution at the Standing long jump between two testings

- Extension of the trunk from a sitting position with hands obliquely back in 15 seconds

Progress of the group was 0.62 repetitions (initial testing - 13.69, final test - 14.31) and individual values were between 10-17 at the initial testing and 11-17 at the final testing (Figure 6).

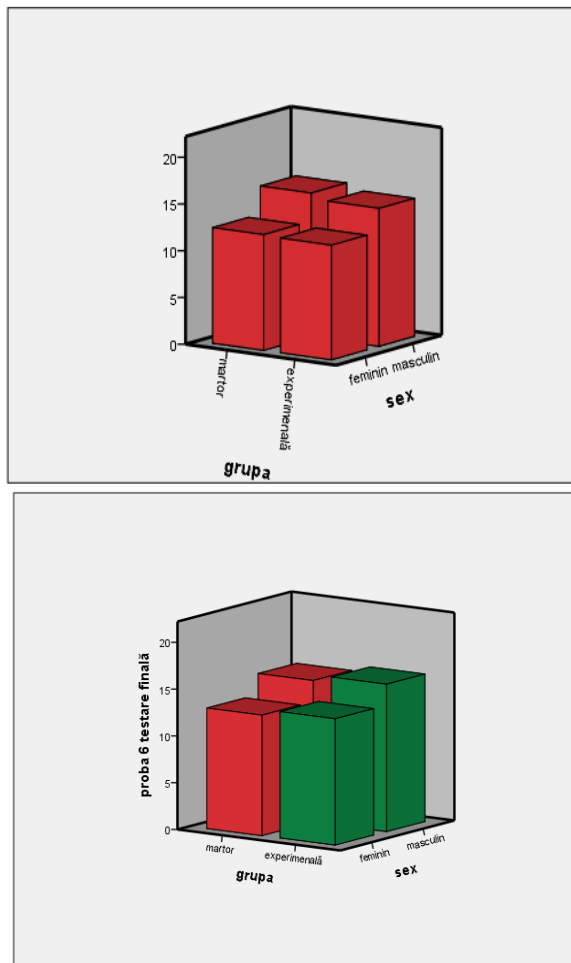


Figure 6 Evolution at the Extension of the trunk from a sitting position with hands obliquely back in 15 seconds between two testings

Conclusions

In this research were used means (exercises and games) for developing strength at primary school and in the course of my research I reached the following conclusions:

- There increases were recorded in each test: trunk lifting (dorsal) in 15 seconds (5,45%), legs lifting in 15 seconds (5,44%), trunk lifting (facial) in 15 seconds(5,17%), complex structure of strength(6,60%), standing long jump(1,45%), trunk extensions from a sitting position with hands obliquely in 15 seconds (4,33%).

- Subjects participating in research have demonstrated, at the final testing, a good strength development, having opportunities to improve individual results.

- The means used in the experiment were well selected, contributing to a significant improvement of individual and collective performance.

Based on these matters I consider that the means employed have contributed essentially to strength development of the primary school children.

Following the research, the results and analysis can be seen that the hypothesis was confirmed.

As a result of the research we formulated some proposals that should be taken into account in practice:

- Setting the unit for strength development with the Gymnastics and / or Utilities and applicative skills, which requires a significant proportion of all muscle groups;

- Minimum unit length for developing Strength to be 10 lessons as inputs for developing the driving skill take effect after at least five weeks;

- Use of the games aimed to develop this driving skill because they lead to a superior involvement of children in motor activity.

References

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STUDIU PRIVIND DEZVOLTAREA APTITUDINII MOTRICE FORȚA PRIN DEPRINDERI APLICATIV-UTILITARE LA ELEVII DIN ÎNVĂȚĂMÂNTUL PRIMAR

Cuvinte cheie: forță, deprinderi aplicativ-utilitare, învățământul primar

Rezumat: În programele de educație fizică această grupă de deprinderi este prevăzută a fi însușită la preșcolari și școlarii mici, urmând ca la celelalte clase să fie perfecționate în cadrul ștafetelor, jocurilor și traseelor aplicative sau prin repetarea lor ca exerciții destinate dezvoltării unor calități motrice. În realizarea demersului nostru am plecat de la ipoteza: dacă vom utiliza structuri de exerciții din deprinderi utilitar-aplicative pentru dezvoltarea forței la elevii din ciclul primar vom obține dezvoltarea acesteia în parametrii optimi pentru îndeplinirea obiectivelor stabilite în lecția de educație fizică. Experimentul pedagogic propriu-zis s-a realizat pe o grupă experimentală formată din 15 elevi de clasa a IV-a de la Școala Generală nr. 3 Marginea în anul școlar 2014-2015. S-au înregistrat progrese la fiecare probă, iar subiecții au demonstrat, la testarea finală, o bună dezvoltare a forței, dispunând de posibilități pentru îmbunătățirea rezultatelor individuale.