

MOTORS SKILLS ANALYSIS OF 12 AND 13 YEARS OLD PUPILS PLAYING VOLLEYBALL

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Introduction:

Sport is an exceptional phenomenon and universal instrument towards education and healthy way of life. Sport is a powerful integrating factor teaching tolerance and acceptance of the differences between the people since early child's age. Practicing physical culture and sport appear as basic instrument for achieving good health and physical shape during school age, particularly in our time, when accent is predominantly put on theoretical knowledge, either humanitarian or linguistic. That is the reason why a number of authors are studying and analyzing the effect of sport as a basic factor for improving the health state, equal standing and socialization of people of specific needs. Adapted physical culture and sport are part of the general adaptation process of a number of activities, accompanying the everyday life and education of these people and in particular the children having various disorders and injuries [2, 3, 4].

According to us, practicing sport games have got particular importance about improving adaptation of children and youths of impaired hearing to the real life situations. By practicing games they are not only establishing specific motive skills, habits, physical and functional qualities but as well their visual – irrigative reactivity is improved being in contact with partners and opponents during the game. Sport games at the same time, are building up a number of moral – will qualities as will, persistency, tolerance, pursuit of manifestation, team work, etc.

Our working hypothesis is: ***children of impaired hearing can level their motive abilities with those of children without such problems under appointed conditions of the education - training process.***

Methods:

The study presented has got an attesting nature and its *objective* is to compare and analyze the level of the motive qualities of 12-13 years old pupils, systematically participating in volleyball educational (training lessons) during their second year of exercise.

The *object* of our study covers four volleyball education - training groups at their initial stage of sport preparation, 40 pupils all at the age of 12-13 years; two groups of 10 girls and 10 boys each at the ordinary Bulgarian 132nd secondary school (SS) and two groups of 10 pupils from both sexes of specific educational needs at “Prof. D. Denev” secondary specialized school for children of impaired hearing (SSS) in Sofia.

The parameters of some basic physical qualities are the *subject* of the study [1, 5].

In order to set up the goals and problems of the research the following methods are used:

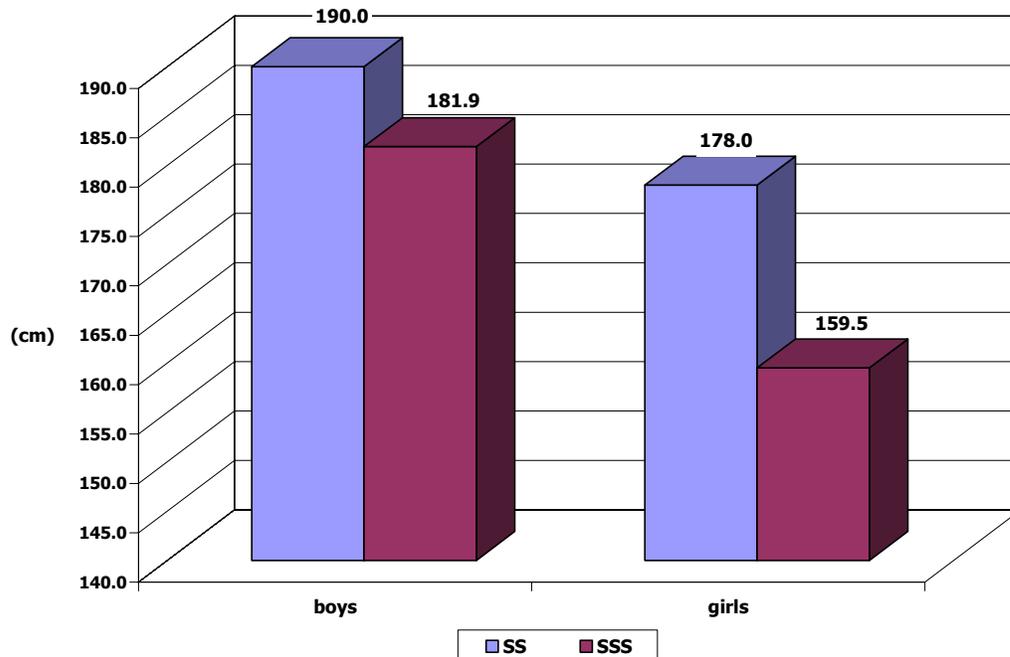
- *theoretical-logical analysis;*
- *testing;*
- *variation analysis.*

Analysis and results:

The average value of the results from the “Long jump with both legs from static position” test of the boys at the SS systematically taking part in the volleyball education (training lessons), is 190 cm. The same indicator for the pupils from the SSS is respectively 181,9 cm. The difference of 8,1 cm is in favor of the 12-13 years old pupils from the SS (***fig. 1***).

The average value of the results from the same test for the SS girls is 178 cm, while that of the specific education needs pupils is respectively 159,5 cm. The difference of 18,5 cm is in favor of the 12-13-years old girls from the SS (**fig. 1**).

Fig 1. Long jump with both legs from static position



The average value of the “Throwing compact 3 kg ball” test for the boys at the SS is 761 cm and respectively for the pupils of specific educational needs is 686 cm. The difference of 75 cm is in favor of the 12-13-years old pupils from the SS. (**fig. 2**).

The average value of the SS girls’ results, taking part in volleyball education (training lessons) is 888 cm, the same indicator for the pupils of specific educational needs is respectively 466 cm. The difference of 422 cm is in favor of the 12-13-years old girls from the SS.

Fig. 2. Trowing a solid ball

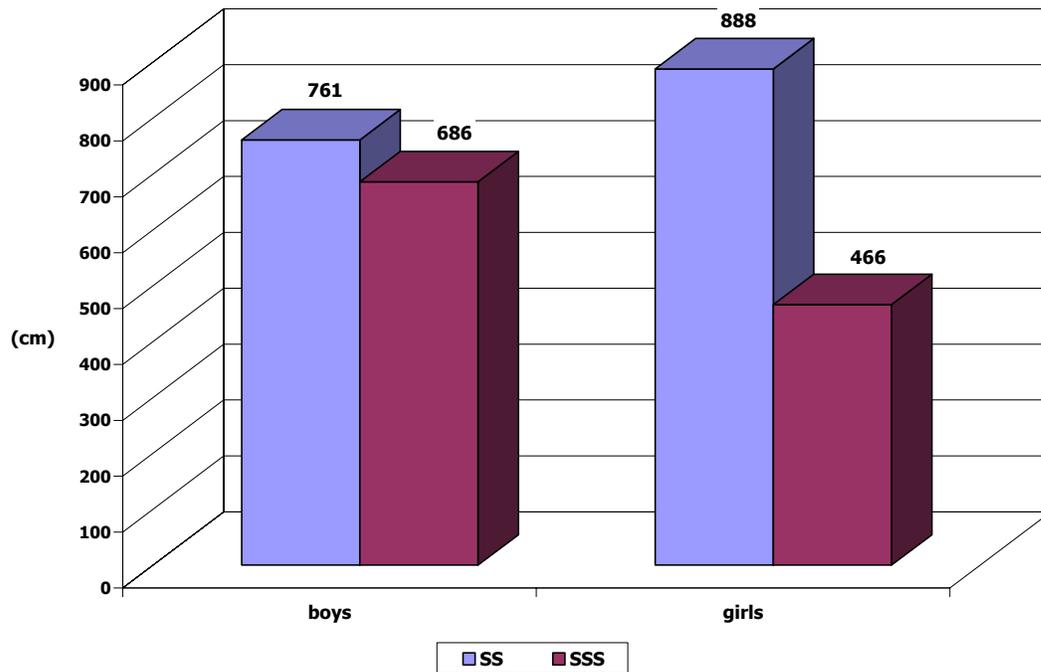


Fig. 3 presents the results from the “Shuttle run” test. The average value for the SS boys is 26, 2 s, while that for the pupils of special educational needs is 26,12 s. The difference of 0,08 s is in favor of the 12-13-years old pupils from the SS.

The average value of the same test results for the SS girls is 26,9 s and 26,62 s - for the pupils of special educational needs. The difference of 0,38 s is in favor of the 12-13-years old SS girls.

Fig. 4 shows the results from the “Jumps on gymnastics bench” test. The average value for the SS boys is 34 jumps and 28,6 is the result for the SSS pupils. The difference of 5, 4 jumps is in favor of the 12-13-years old SS pupils.

The average value of the same test results for the SS girls is 34 and 25,2 is the result of the specific educational needs pupils. The difference of 8,8 is in favor of the 12-13-years old SS girls.

The conclusion is that the SS pupils’ results are better for that test too. The fact that the results for the both of sexes are close in their values should be mentioned while for the SS pupils they are even equal in number (34).

Fig. 3. Shuttle run

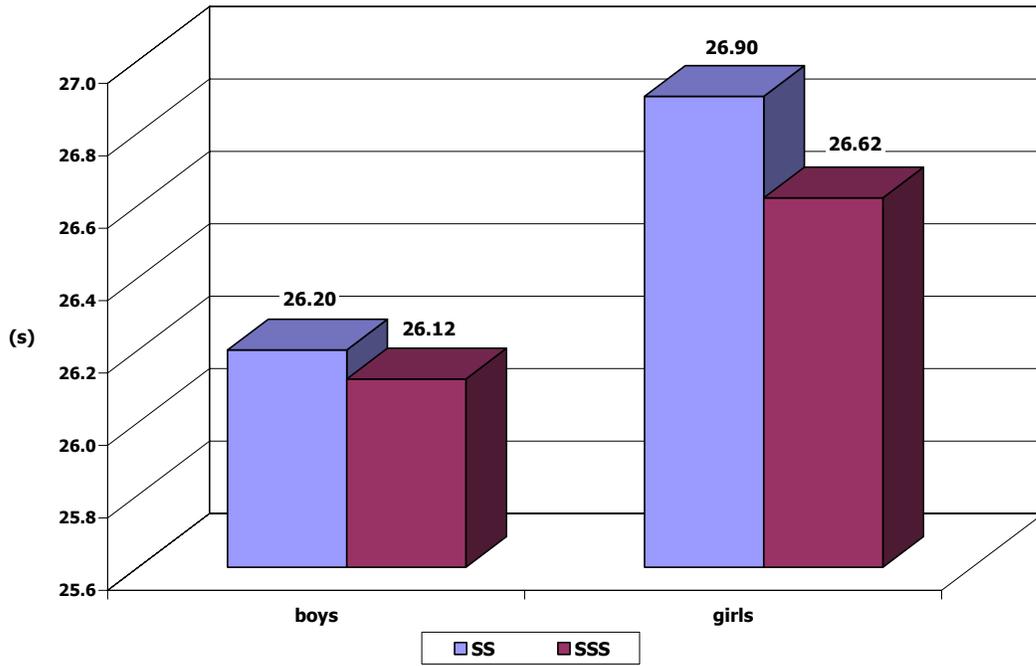


Fig. 4. Jumps on a gymnastic bench (for 30 s)

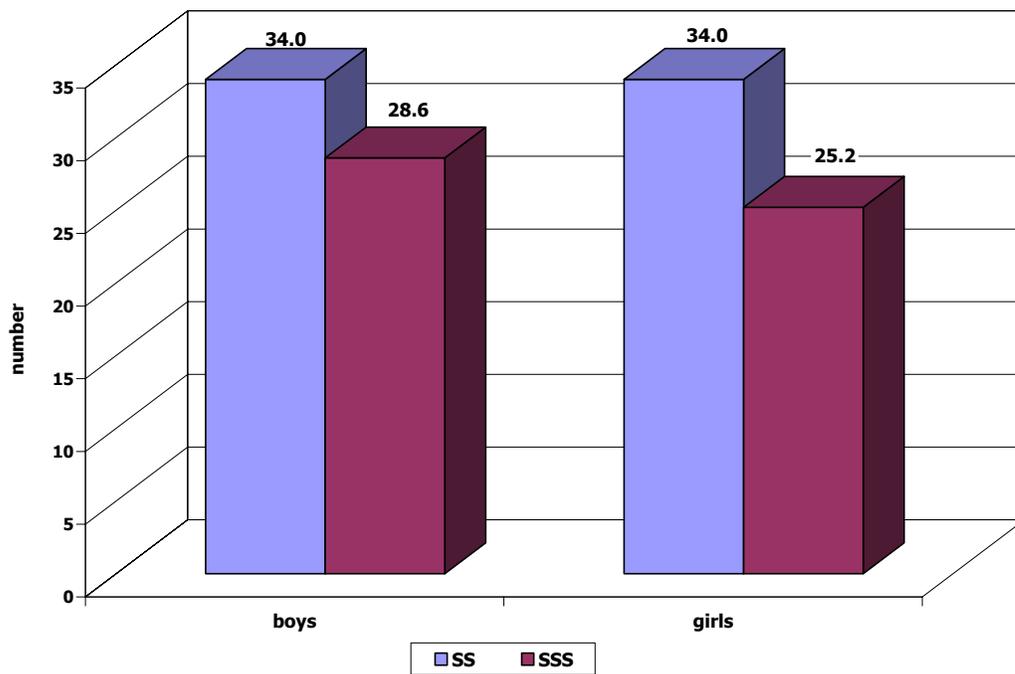
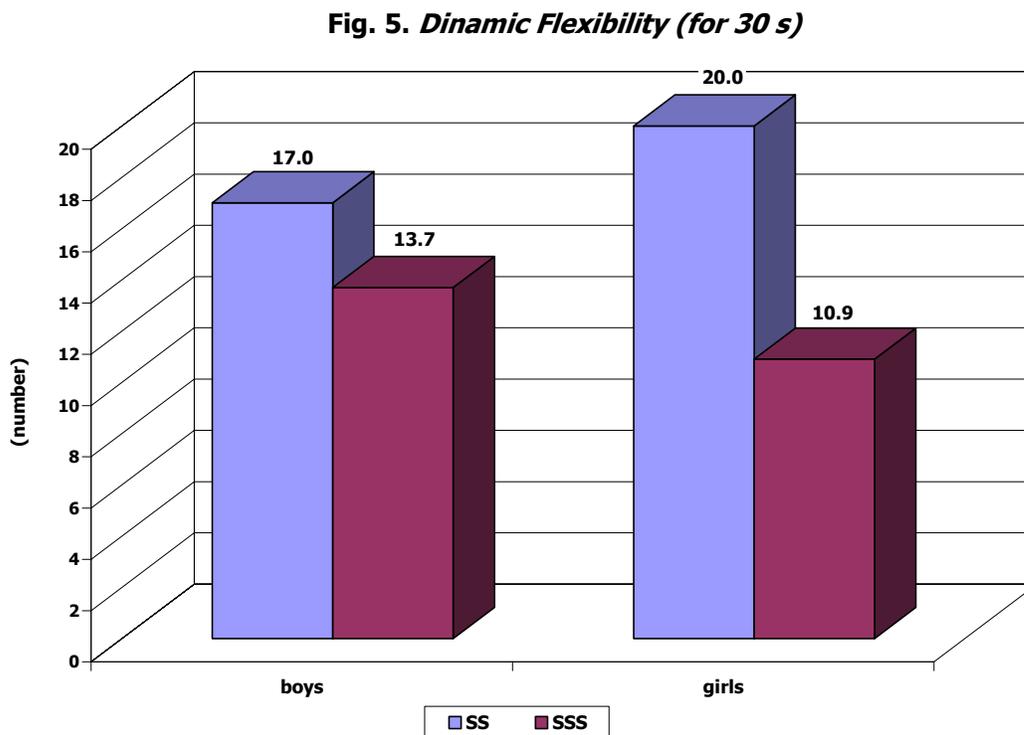


Fig. 5 presents the results from the “Dynamic flexibility” test. The average value of the SS boys is 17 number/30sec and for the pupils of special educational needs it is 13,7. The difference of 3,3 is in favor of the 12-13-years old SS pupils.

The average value of the same test for the SS girls (**fig. 5**) is 20 while that for the pupils of special educational needs is 10,9. The difference of 9,10 is in favor of the 12-13-years old SS girls.



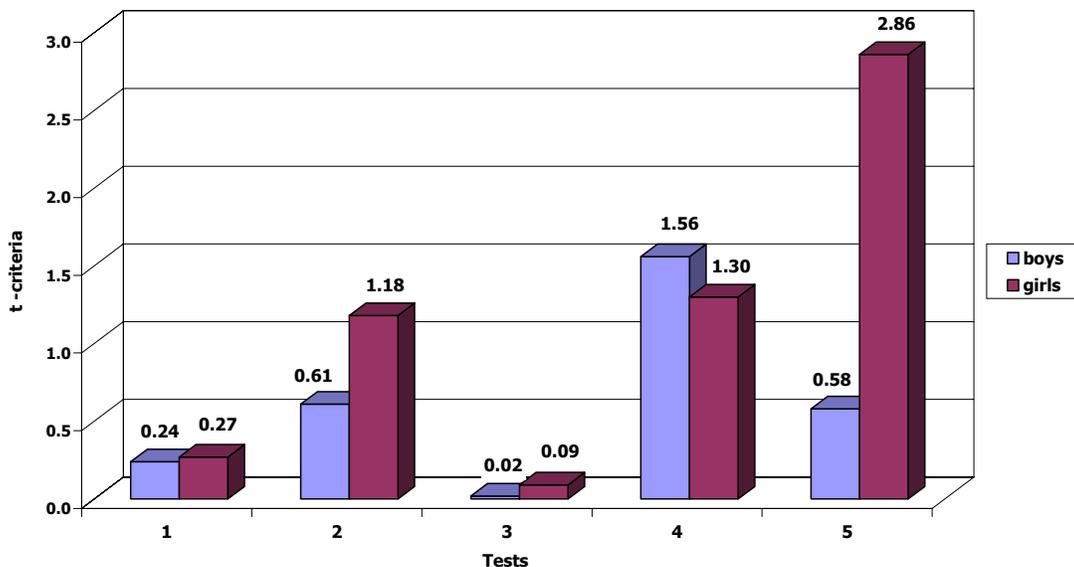
The “Dynamic flexibility” test results (**fig. 5**) are better for the good in hearing pupils training volleyball. Bigger are the differences for the females (average by 9 numbers or 45,5 % higher is the result of the good in hearing girls and by more than 3 numbers or 9 % of the SS boys). It turned out that the pupils of specific needs have difficulties in performing this test; we think that could result from the increased irritation of the vestibular apparatus, located in the impaired ear organ. Additional studies are needed for more categorical conclusions as the sample is small and the tests are single ones.

The analysis of the average levels differences of the indications studied shows that the SS groups have higher achievements in all researched indicators. But, the observed average level differences of the indications studied aren't enough to allow making serious deductions and conclusions. That is the reason why the t-criteria of Student have been calculated (**fig. 6**).

It is obvious from the data presented in **fig. 6** that for all the 5 indicators for the boys, the values of the calculated comparative t-criteria, are lower than the critical one (have values under 2,02) and consequently, for them it can by higher guarantee probability be maintained, that there do not exist considerable distinctions in the development level of the indications studied.

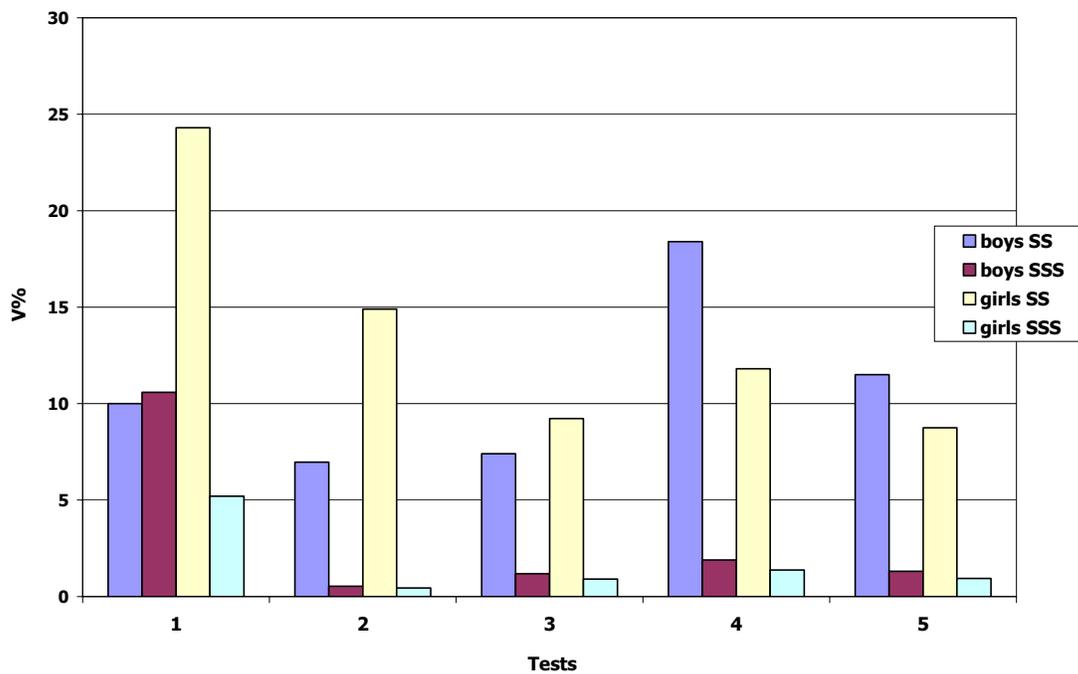
Analogical are the results for the girls studied – for 4 of the indicators, the values of the calculated comparative t-criteria are lower than the critical one (have values under 2,02) and consequently for them, it can by higher guarantee probability be maintained, that there do not exist considerable distinctions in the development level of the indications studied. It is not valid only for the fifth indicator - “Dynamic flexibility” ($t_5 - 2,86$) where the differences are considerable.

Fig. 6. Significance of the differences between the average levels of the motive qualities



The values of the variation coefficient presented (**fig. 7**) are under 10% for the first, second and third indicator for the boys and for the third, fourth and fifth indicator for the girls, which speaks about homogeneity and stability of the indicators studied, while the values of the fourth and fifth indicator for the boys and the first and second for the girls speak about relative homogeneity and stability of the indicators studied.

Fig. 7. Variation coefficient V



Summary:

The studies conducted and analysis of the results confirms that the effect of the physical exercises is strictly individual.

The observations described and the analysis of the results of our study, which is of attesting nature, lead to the conclusion that under the education-training process and the choice of appropriate methods and means, satisfactory result can be achieved even for pupils of specific educational needs, without the physical exercises and sport to loose their purposefulness and attraction.

Our suppositions for leveling the motive abilities of pupils having specific educational needs with those of the SS pupils, practicing volleyball, have been confirmed by the close levels of the physical qualities (particularly for the males) but they need deeper studies with a greater number of pupils and defining the program requirements in more details, the conditions and the regime of work. Additionally we have to underline that it is imposing to put an accent on demonstrativeness upon teaching pupils of specific educational needs as well as the ability to know, although not perfectly, mimic speech so that the education in any sport be done more effectively and rapidly.

The difficulties met by the pupils of specific educational needs upon the execution of the dynamic flexibility test show the need of deeper researches of the abilities of the deaf children and those with impaired hearing to perform rapid and complicated motive actions, having an irritated vestibular apparatus and the dynamic state of the body.

We think that the conclusions presented under our study and researches have got methodological and practical significance for the education - training process and the physical education of children of impaired hearing.

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