Section A -Research paper

NEW INNOVATIVE DIGITAL TECHNOLOGIES OF SCANDINAVIAN WALKING IN MAINTAINING AND STRENGTHENING CHILDREN'S HEALTH

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Annotation: in this article, it was mentioned about the application of Nordic walking for the purpose of productive use of leisure time of Primary School students, as well as its positive impact on the health of students.

Key words: Scandinavian walking, elementary preparation, healthy life, physical preparation, functional preparation.

Actuality. In our country, physical education and sports become the priority task of the state policy, improving the gene pool of the nation, as a means of educating the younger generation with high physical and mental well-being is used as the most important sphere of strategic importance in the promotion of the ideas of national independence.

Decree of the President of the Republic of Uzbekistan No. PF-4947 of February 7, 2017 "Strategy of actions on five priority areas of development of the Republic of Uzbekistan for 2017-2021", Resolution No. PD-3907 of August 14, 2018 "On measures to bring up young people spiritually, morally and physically fit, to raise their education system to a qualitatively new level", The Decree of the President of the Republic of Uzbekistan PD-5538 dated September 5, 2018 "On additional measures to improve the management system of public education" shows the high attention paid to the development of physical culture and sports, especially among young people. [1,2]

The study and analysis of scientific and methodological literature of local and foreign scientists shows that there are many scientific studies devoted to the problems of physical education in the field of Health Promotion, in particular, G.V.Julin, I.A.Koshbakhtiev, D.D.Sharipov, L.I.Lubishov, T.S.Usmankhodzhaev and others.

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Problems of Organization of physical education classes in the direction of Health Improvement M.V.Zvereva, A.M.Kazin, L.V.Smuriga, I.A.Sennikova, A.G.O'edrin, T.A.Daminova, B.T.Khalmatova and others.

To analyze the age characteristics in the physical preparation of Primary School students O.V.Goncharova, V.I.Lyax, V.A.Ermakov, A.N.Kainav, T.G.Sulimova, A.No, it's not. Farrahova, I.G.Dukalsky, V.P.Guba, A.A.It was carried out on the basis of the works of gujalovsky and others. [3,4]

At the present stage of physical education of Primary School students, the main tasks are the formation of a healthy lifestyle, the strengthening of their health, the development and preservation of the level of physical training achieved in physical development and toning each time using the existing modern technologies of physical education. [9]

The purpose of the study: to examine the extent of comprehensive harmonic development and preparedness of Secondary School Primary School students in their free time from the lesson while using Scandinavian gait instrument.

Objectives of the study:

To study the characteristics of physical education training and to assess the level of health status, morphofunctional state and physical fitness of Primary School students.

To base the methodology of the use of Scandinavian walking aids in the extracurricular time of Primary School students.

To develop a classification of Scandinavian walking vehicles, depending on the impact of physical quality development on primary school students.

Increase the effectiveness of physical and functional training indicators while using Scandinavian walking with primary school students.

Methods of research: analysis and generalization of scientific and methodological literature; pedagogical test; medical and biological methods; pedagogical experiment; methods of Mathematical Statistics.

Organization of the study: the pedagogical research was attended by pupils of primary classes (pupils of 4 classes, 72 pupils of total 10 years of age, 36 of them boys and 36 girls) in secondary schools No. 2 and No. 7 in the Turakurgan District of Namangan region. All participants in the study (n=144) were divided into two groups: ("EG") experiment and ("CG") control groups. In both groups, the number of children was the same (n= 72).

It was developed by us in the determination of the level of physical training of Primary School students, as well as registered with the number DGU 11872 by the

intellectual property agency under the Ministry of Justice "scan. We used the computer program "Scan.Khod".

Results of the study and its discussion:

The statistical comparisons made between EG and CG, which we were examining at the beginning of the pedagogical study, showed no differences in the previous state.

In the control group, the average running time from a high start to a distance of 30 meters is 6,01±0,54 seconds, in the experimental group-6,1±0,58 seconds, reliability (t=1,35; R0,05). The results of the jump control group for 1 minute on the rope 58,1±6,6 times, in the experimental group 58,5±6,5 times, reliability (R0, 05). By the quality of the fast, it is clear that the groups are the same.

The next indicator for shuttle running at a distance of 3x10 meters, we observed the following: the results of the control group on shuttle running were 11,1±1,37 seconds, in the experimental group-11,2±1,46 seconds, reliability (t=0,6; R0,05). The test of bending forward in the case of sitting on the floor holding a Scandinavian stick, CG 7,02±0,69 times, in the experimental group 7,1±0,84 times, reliability (t=1,14; R0,05).

Twisting hands in a floor-based position. Here, too, we observed that in the control group this figure is 15,08±1,68 times, in the experimental group 15,3±1,61 times, reliability (t=0,94; R0,05). Traction in the tourniquet. This control exercise helped us identify the following. In particular, in the control group, this indicator is 4,16±0,52 times, in the experimental group-4,25±0,57 times, reliability (t=1,40; R0,05). This also made it clear that there are no reliable statistical differences between these indicators (see Table 1).

1-table.

Statistical analysis of physical training indicators of primary class EG and CG at the beginning of pedagogical research under investigation

T/p	Types of tests	Control group n=72		Experimental group n=72		Difference	t	P
		x±y	V %	x±y	V %			
1	Running from high start to a distance of 30 m, (seconds)	6,01±0,54	8,98	6,1±0,58	9,50	0,09	1,35	p>0,05
2	Tenderness (For 1 minute) (Times)	58,1±6,6	11,35	58,5±6,5	11,14	0,4	0,51	p>0,05
3	Shuttle running 3x10m. (seconds)	11,1±1,37	12,34	11,2±1,46	13.03	0,1	0,6	p>0,05

4	Sit on the floor and bend forward in the position holding the Scandinavian stick. (times)	7,02±0,69	9,82	7,1±0,84	11,83	0,08	1,14	p>0,05
5	Jump from standing to length (sm)	112±9,8	8,75	114±10,8	9,47	2	1,87	p>0,05
6	Twisting hands in a floor-based position (times)	15,08±1,68	11,14	15,3±1,61	10,52	0,22	0,94	p>0,05
7	Tourniquet traction (low tourniquet for girls) (times)	4,16±0,52	12,5	4,25±0,57	13,41	0,09	1,40	p>0,05
8	Sitting in a standing position on a Scandinavian stick (Martha)	35,1±3,71	10,56	34,3±3,45	10.05	0,8	1,90	p>0,05
9	Scandinavian walk to 400 m (seconds)	242,5±23,2	9,58	250,3±24,8	9,90	7,8	1,95	p>0,05
10	12 minute Scandinavian walking (meters)	1115,3±118,2	10,60	1082,7±110,4	10,19	32,6	1,19	p>0,05

Sitting in a standing position, leaning on a Scandinavian stick. CG this indicator is 35,1±3,71 times, while tg is 34,3±3,45 times, reliability (t=1,90; R0,05). Scandinavian walk to 400 m. At Ng 242,5±23,2 seconds, at tg 250,3±24,8 seconds, (t=1,95; R0,05). The Last control indicator is a 12-minute Scandinavian walk. At EG 1115,3±118,2 meters, at 1082,7±110,4 meters, reliability (t=1,19; R0,05). In the last two types of control, the results turned out to be very low, which is evidenced by the fact that the students did not have any understanding of Scandinavian walking.

For example, running from a high start to a distance of 30 meters ng at the beginning of the study was 6,01±0,54 seconds, and at the end of the study changed to 5,86±0,41 seconds, that is, 0,15 seconds (t=1,84 p>0.05). Reliable differences on this indicator are obvious (see Table 2).

2-table.

The results of the tests of the primary class experience and control groups on the indicators of physical training at the beginning and at the end of the pedagogical experience (n=144)

Types of tests	**Group**	**Before experience**		**After experience**		**Difference**	**t**	**P**
		x±σ	**V %**	**x±σ**	**V %**			
Running from high start to a distance of 30 m, (seconds)	CG	6,01±0,54	8,98	5,86±0,41	7,19	-0,15	1,84	>0.05
	EG	6,1±0,58	9,50	5,56±0,52	9,35	-0,54	5,88	<0.001
Tenderness	CG	58,1±6,6	11,35	61,2±7,5	12,19	+3,1	2,60	<0.05

(For 1 minute) (Times)	EG	58,5±6,5	11,14	64,7±7,2	11,12	+6,2	5,29	<0.001
Shuttle running 3x10m. (seconds)	CG	11,1±1,37	12,34	10,7±1,19	11,12	-0,4	1,84	>0.05
	EG	11,2±1,46	13.03	10,3±1,30	12,62	-0,9	3,86	<0.001
Sit on the floor and bend forward in the position holding the Scandinavian stick. (times)	CG	7,02±0,69	9,82	7,4±0,80	10,81	+0,38	2,77	<0.01
	EG	7,1±0,84	11,83	8,3±0,91	10,96	+1,2	8,14	<0.001
Jump from standing to length (sm)	CG	112±9,8	8,75	115,3±10,6	9,48	+3,3	1,84	>0.05
	EG	114±10,8	9,47	121,2±11,4	9,40	+7,2	3,78	<0.001
Twisting hands in a floor-based position (times)	CG	15,08±1,68	11,14	15,77±1,89	10,48	+0,69	2,26	<0.05
	EG	15,3±1,61	10,52	16,52±1,80	10,89	+1,22	4,25	<0.001
Tourniquet traction (low tourniquet for girls) (times)	CG	4,16±0,52	12,5	4,33±0,61	14,18	+0,17	1,76	>0.05
	EG	4,25±0,57	13,41	4,44±0,63	14,18	+0,28	2,90	<0.001
Sitting in a standing position on a Scandinavian stick (Martha)	CG	35,1±3,71	10,56	36,8±3,91	10,61	+1,7	2,60	<0.05
	EG	34,3±3,45	10.05	38,8±4,3	11,08	+4,5	6,81	<0.001
Scandinavian walk to 400 m (seconds)	CG	242,5±23,2	9,58	230,4±22,5	11,25	-12,1	3,14	<0.01
	EG	250,3±24,8	9,90	219,1±23,9	10,90	-31,2	7,77	<0.001
12 minute Scandinavian walking (meters)	CG	1115,3±118,2	10,60	1168,2±122,1	10,45	+52,9	2,6	<0.05
	EG	1082,7±110,4	10,19	1210,2±130,1	10,75	+127,5	6,21	<0.001

At the beginning of the study on 30 meter distance from high start running at EG was 6,1±0,58 seconds, by the end of the study, this indicator changed to 5,56±0,52 seconds, which means that the result was improved to 0,54 seconds (t=5,88; p>0.05), indicating that the differences in tg were statistically high and reliable.

The next figure was equal to 58.1±6.6 times at the beginning of the study at ng On The Jump for 1 minute on the rope, and at the end of the study 61,2±7,5 times, that is, 3,1 Times (t=5,88 and P>0.05 without statistical confidence). At Tg, this figure increased by 58.5±6.5 times, and at the end of the experiment this figure increased by 64.7±7.2 times (See Figure 1).

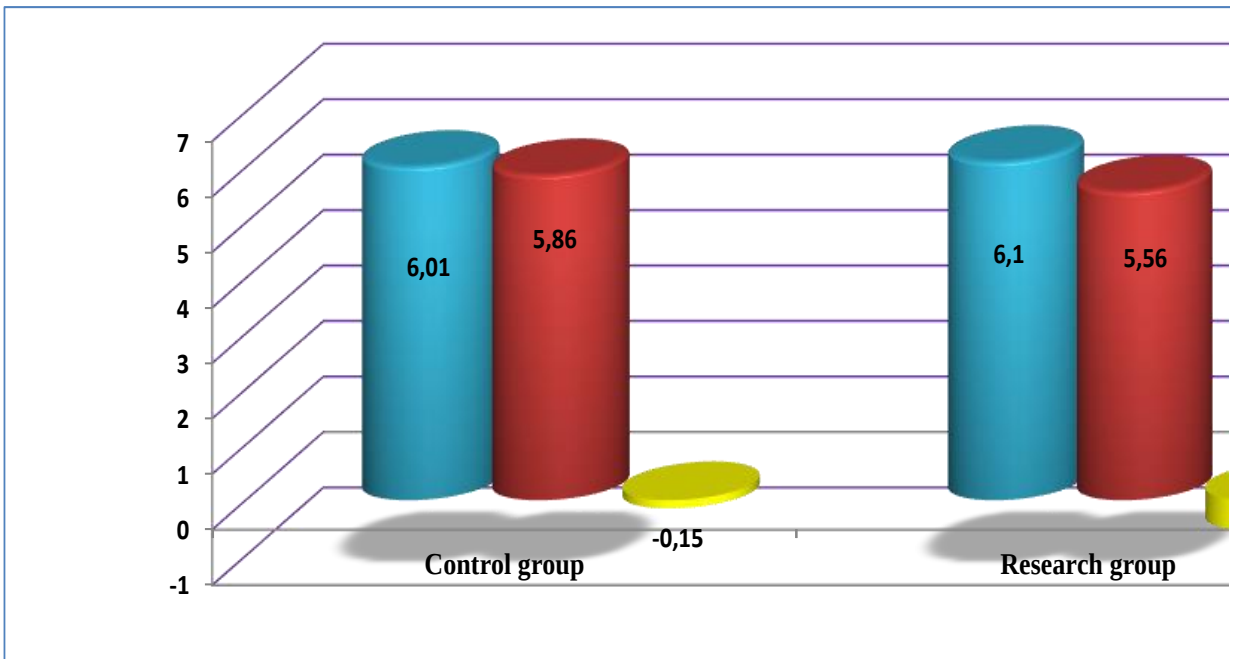

Figure 1. Diagram showing the difference in the performance of 30-meter running groups of primary school experimental and control groups at the beginning and end of pedagogical practice

Running a shuttle of 3x10 meters at CG was equal to 11,1±1,37 seconds at the beginning of the study, while at the end of the study was 10,7±1,19 seconds (t=1,84 and statistical unreliable p>0.05). At TG, this indicator was expressed as 11,2±1,46 seconds at the beginning of the study and 10,3±1,30 seconds at the end of the study (t=3,86 and statistical reliable p>0.001).

In the case of sit-ups with a Scandinavian stick, CG at the beginning of the experiment was 35,1±3,71 times, by the end of the experiment, their average indicators reached 36,8±3,91 times and increased by 1,7 times (t=2,60 and p<0.05). On this indicator, EG at the beginning of the experiment was 34,3±3,45 times, after the experiment it was 38,8±4,3 times, 4,5 increased in March, the growth rate was significant, (t=6,81 and p<0.001) statistically reliable.

The results obtained from the Kuper test showed that NG before the experiment was 1115,3±118,2 meters, at the end of the experiment it was 1168,2±122,1 meters, or the growth rate of endurance was statistically unreliable and was equal to 52,9 meters (t=2,6 and p<0.05). At TG, however, if this indicator was 1082,7±110,4 meters before the experiment, then by the end of the experiment, it is better to 1210,2±130,1 meters, or the growth rate of endurance was statistically reliable 127,5 meters (t=6,21 and p<0.001) (see Figure 2).

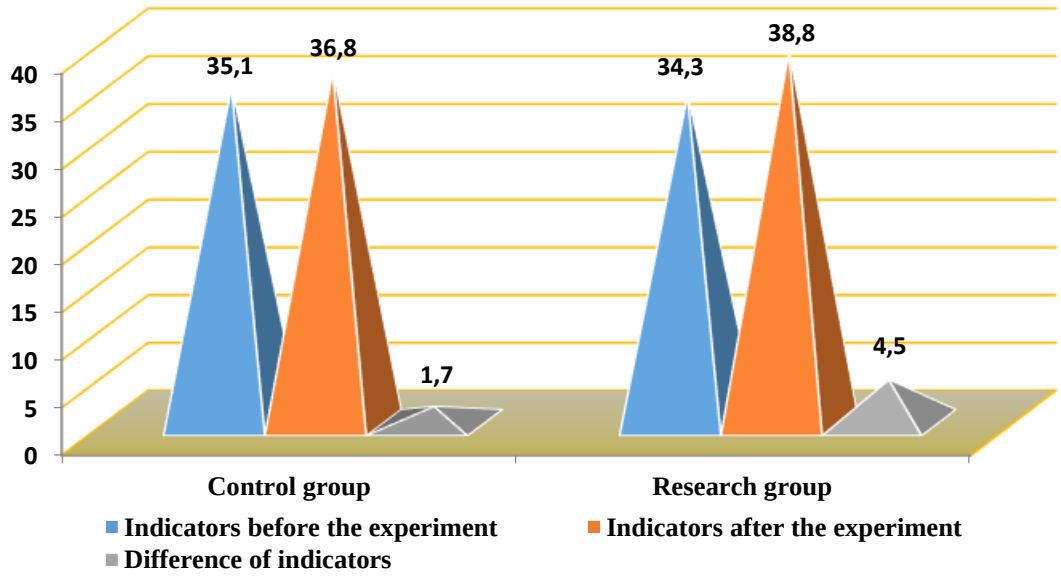

Figure 2. Diagram showing the difference between the beginning and end of the pedagogical experiment, the performance of the primary school experimental and control groups holding the Scandinavian stick

In the 400 m Scandinavian walk, the following was determined: NG for this walk showed a result of 242.5 ± 23.2 seconds at the beginning of the experiment, and 230.4 ± 22.5 seconds at the end of the experiment. The growth rate improved by 12.1 s ($t = 3.14$ and $p < 0.01$). In this walk, the TG improved by 250.3 ± 24.8 seconds at the beginning of the experiment and by 219.1 ± 23.9 seconds after the experiment, or the growth rate improved by 31.2 seconds, statistically reliable ($t = 7.77$ and $p < 0.001$).) grew.

Conclusions: The results of a study on the use of Scandinavian walking in the spare time of primary school students allowed us to draw the following conclusions:

1. The results of the study and analysis of the scientific literature have shown that today this Scandinavian walk is used by adults to improve their health. The lack of sufficient research-based literature on strengthening children' s physical development and fitness levels was identified during the research process.

2. Scandinavian walking in the all-round development of children has a positive effect on their body. There is almost no risk of injury during training sessions. Scandinavian walking provides muscle function (up to 90%) compared to normal walking. The whole body is involved in the movement, and it was observed that the most important muscles of the legs, abdomen, buttocks, back and arms are actively working while exercising.

3. Due to special sticks, the load on the upper shoulder girdle muscles is reduced, which helps to reduce the load on the leg muscles. In addition: it serves to improve the functioning of the cardiovascular system, reduce overweight, prevent depression, increase physical activity and improve health, improve overall physical development and physical fitness.

However, there is no work on organizing and conducting physical education classes with primary school students using Scandinavian walking aids.

4. This situation determines the need and relevance of developing a methodology of lessons using Scandinavian walking aids, taking into account the climatic and geographical features of our country. These results will serve to improve the health of primary school students, improve their overall physical development and level of physical fitness.

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