

Developing The Accuracy Of Kicks In Young Taekwondo Athletes Using Innovative Tools

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Annotation

The study of scientific work on research conducted in recent years shows us the need for scientific justification by identifying effective tools and methods that promote the improvement of the technical and tactical training of young taekwondo practitioners and introducing them in training. This dissertation developed a special training module aimed at developing the accuracy of foot strikes by improving the special physical training and technical-tactical training of students studying in the direction of sports activities (taekwondo WT) in higher educational institutions and developing their competitive potential. This module is used on the basis of a developed training plan and serves as an important factor in improving the quality of athletes' training.

Key words: taekwondo, innovative technologies, young athletes, young taekwondo athletes, scientific article, foot strikes, developing strike accuracy, increasing strike effectiveness,

In the world, there is a lot of scientific research on the application of new tools and methods used by taekwondo WT specialists in improving the technical and tactical training of young taekwondo practitioners to the training process, the formation of hand and foot movement techniques and the planning of training loadings. Today, due to the rapid growth of results in taekwondo sports, the use of not only traditional exercises in this field, but also the improvement of the technical and tactical training of young taekwondo players based on the analysis of competition activities and competitions, the effective mastery of the technique of leg kicks, the evolution of the system of organizing training and training

The development of sports in our republic, the education of athletes with strong competitive qualifications in the international arena, is one of the important areas of social reform. Especially great attention is paid to the development of children's Sports on a scientific basis. "The wide involvement of young people in sports and the selection of talented athletes among them, the formation of national teams with skilled athletes who provide high results in sports " is gaining importance. In this regard, the problem of young taekwondo athletes not being able to consistently achieve results in prestigious international competitions is one of the priority tasks. Through research based on the elimination of these problems, as well as analysis of modern competitions, it was found that a large amplitude foot has a positive effect on the effectiveness of the system of preparing Taekwondo players for prestigious competitions by introducing movements (holding the leg high in the air, being able to freely direct the leg to the body and head of the opponent). Also, the study of scientific work on research conducted in recent years shows us the need for scientific justification by identifying effective tools and methods that promote the improvement of the technical and tactical training of young taekwondo practitioners and introducing them in training. In accordance with the decree of the president of the Republic of Uzbekistan dated February 14, 2022 "on accelerating the preparatory work for the successful participation of Uzbekistan's athletes in the next summer and Winter Olympic and Paralympic Games" PQ-127, it was also decided to popularize taekwondo WT as an Olympic sport, improve the system of sorting athletes from among young people, ensure. The literature places great emphasis on the development of physical qualities, including accuracy. This is L.V. Derbab, W.I. Lyax, B.A. Ashmarin, M.R. Galeyev, G.A. It is reflected in the works of Vasilkov and other scientists.

From the point of view of the tasks set, the leading theorists of our country, in particular M.N. Umarov, I.A. Koshbaktiyev, E.A. Seytkhalilov, R.S. Salomov, T.S. Usmankhodjayev, Sh.X. Khankeldiyev sharply puts the issue of improving the quality and efficiency of the process of conducting research in Pedagogical Sciences, the need to develop advanced pedagogical and information technologies, modern educational and methodological complexes, improving the content of education and creating state educational standards for

the corresponding types of continuing education. The activities of the faculties of physical education in higher educational institutions should be aimed at improving the quality of training of highly qualified and professionally knowledgeable specialists for higher educational institutions on the basis of new effective pedagogical technologies of education and education.

An important task of the development of Science in the field of physical education is the development of methods of wellness and movement training for a wide range of population.

In taekwondo techniques, various percussion complexes and karate elements are combined with the legs, characteristic of txecken. It is not for nothing that taekwondo can be translated as “the way of arms and legs”. This synthetic type, on the one hand, revived the ancient Korean martial art, and on the other-contained elements of the technical arsenal of the method and made it harmonized.

Research objective. Competition activities aimed at improving the effectiveness of technical and tactical actions on Khol, which used modern technologies in the development of foot strikes during the preparation of Taekwondo players for competitions in improving the effect of foot strikes, consist in laying the plan.

Tasks of research work.

1. Monitoring the technical correctness of the shots being performed and checking whether the shots are being done in the tactically desired time position.
2. Increase the efficiency of selected shots using the MONKEYFEET device.
3. Scientific justification of the importance of innovative methods in increasing shock accuracy of Taekwondo players

Object of study. Scientific research is the educational training process of students engaged in taekwondo at the Uzbek State University of physical education and sports, located at 19 Sport Street, Chirchik city, Tashkent region.

Subject of research. During the taekwondo sports club, the development of athletes' training is organized through means and methods.

In order to check to what extent they know their sport at the psychological and scientific level, our athletes, sorted on the basis of our pedagogical observations and our pedagogical experiments, conducted questionnaire surveys among them. Because we all know that between the preparatory stage of each athlete, the stage of scientific and psychological readiness is also very important. Because it is difficult for an athlete to give the expected result by being able to perform each technical movement skillfully. Of course, in order for him to be able to correctly assess this skill tactically, his knowledge and skills in his sport are considered very important. Analyzing our questionnaire surveys for this purpose, the expected result from it was mainly divided into 3 groups.

Our task was to check our athletes for knowledge skills at the level of taekwondo Sports 2-to check the current coaches in Uzbekistan and the level of psychological approach to refereeing activities. Because the athlete is his trainer who gives him the closest concepts during the fight with the opponent, it is possible to observe a situation when the confidence in the coach is not enough in the athlete that he will not be able to accurately perform the stated tasks. If we take the degree of knowledge of refereeing among athletes we can often see dissatisfaction with refereeing it is also indirectly observed that the athlete also has a psychological impact in future competition activities, one of the most necessary tasks was to check the athlete's ability to correctly assess their own physical condition, as well as to know the most common leg kick Because this task was necessary for our method of inspection, which we will perform at the next stage. And based on the response given, we have selected the foot kick, which is the most comfortable and effective for athletes today. 90% of the answers given were even obtained according to the result of 95% of the foot-performed appalchagi foot shot found to be the most popular and convenient to perform for all athletes. Even if we will see the analysis of major competitions, we will witness that from 2012-2013 this blow has become much more popular. We can say that the reason for this is precisely from these years in large competitions, and in subsequent years the assessment system of all competitions has switched to protectors, helmets and sensor socks, which consist of touch points. These equipment, which consisted of touch points, would primarily increase the number of achcoes by accurately sending the shot as well as giving the required kilograms, in some cases the achcoes did not come out, even if the impact force was more than necessary but did not reach

the exact points. This in itself began to give birth to havotres in athletes and coaches, so that even from complex shots gradually took mostly leg shots especially replaced their position with an appalchagi shot. According to the analysis of our questionnaire survey, which we also gave, our student athletes developed a task exercise precisely through this blow, precisely because they saw the blow of the appalchagi. You can see what it looks like in the 2 pictures below.



1.1-picture

In this photo 1, you can see that our model is pointing to the front leg with the hand gesture shown.



1.2-picture

Even for athletes in the process of competitions, because there is a chance that the achkos will work with a blow on their feet, they are exactly the ones who took a blow with their legs bent and their legs spread out of the bent position, the so-called APPAL CHAGI blow. And through this shock we will be able to see the results we have received from our students, our research in progres

Summary of the accuracy of the shots taken, the result of the effectiveness of the athletes' shots

We decided to test our chosen shot, through lapa. The result of our first tests showed that our experience with our athletes through electronic sensor devices did not justify itself, since our athletes did not have the opportunity to move tirelessly. Relentless movement refers to movement up and down rather than back and forward. There was only one way to do this, unfortunately this method was not as effective as expected. In this method, we would have to put electronic slams on the Lapa and order our students to perform the shot, and even if they could not accurately touch the shot, the impact through the strong sensing points of the electron Slams was more likely to get the achcoes out. This in itself would have led us to significantly mislead the degree of accuracy in the shot that the athlete gave us. That is why we decided to test our athletes through their kernels, which we have always used.



1.3-picture

Our experience was as follows. In doing so, athletes were given 10 shots over a period of 30 seconds, which are performed by performing continuous lapa strikes up and down between the abdomen and head, with a correct shot with a coach gesture. Shuda lapa will be in a standing position up and down, with a 30-second time interval the coach will give a count, and after that count the athletes will have to hit the Lapa, which is constantly being harassed. This figure was calculated in percentages based on the number of hits from the given 10 rounds in the same time period, how many hits exactly reached the Lapa. In the table below, we can see the athletes who participated in all our experiments, their pre-experiment performance.

Analysis of the research team's results after the exercise (n=10)

1.1-table

N	Full name	Given tattoos number	Number of hits reached exactly	Percentage of hits indicator
1	Jo'raboyeva Durdona	10	6	60
2	Urazaliyeva Sevinch	10	2	20
3	Abdurasulov Axad	10	5	50
4	Nozimjonov Temur	10	2	20
5	Bozorboyev Davlat	10	6	60
6	Valijonova Dildora	10	4	40
7	Rustamova Ziyoda	10	1	10
8	Ergasheva Gulyora	10	4	40
9	Odilov Humoyun	10	5	50
10	Hakimov Javlonbek	10	7	70

A set of exercises developed to increase the foot strike of athletes using the Monkeyfeet device

MonkeyFeet is a training equipment designed to increase the strength and stability of the leg muscles, specifically the leg, lower leg and thigh muscles, by adding weight to the exercises. This device is fastened to the foot and allows you to lift the dumbbells with the foot, which creates additional weight and discomfort for the muscles of the legs and feet



1.4-picture

As a result of our research, we have observed the accuracy of foot strikes in athletes and, together with this, the current technical and tactical processes of our athletes. In doing so, we carried out the training process, the lesson process and, together with this, the observation of the processes of fighting our athletes. In order for our exercises to give an effective result, we saw using different styles. As a result of our research, we began to achieve shock accuracy by developing all physical qualities in our athletes. After that, we came to the idea that mahsus sandbags will help us better. But we preferred to use another device, considering that the inconvenience in wearing special sandbags, more weight falls on the ankle part of the leg, and the benefit effect is lower on our upper and lower leg muscles, which play the most fundamental role in our shot. This device puts the weight on the top of the foot, giving the weight to the most starting part of the foot, which directly distributes the balance in our athletes correctly, giving the weight they need exactly to the points where the foot kick should reach. The name of this device is called the MonkeyFeet device.

MonkeyFeet is a device that allows athletes to lift mahsus dumbbells with their feet, and it was invented jointly by Paul Jackson and Evan Gubera. The idea came about when an athlete named Gubera was recovering from his injury and was looking for a way to strengthen his legs without large, expensive cars. He collaborated with engineer Jackson to develop the product. Together, they founded Animal House Fitness and launched the Monkey Feet device in late 2020.

At this point, of course, the question arises why exactly the so-called MonkeyFeet was named. We all have a known monkey-monkey and feet give a foot translation. The question of how the monkey's legs relate to this device certainly made me think, and I decided to look for it on the internet. The result of my research showed that the name "MonkeyFeet" was inspired by the function of a device that mimics the use of monkeys' feet to grasp and control objects. Monkeys have legs but they are just like hand movements, allowing objects to be caught and held, as if saying that this product allows people to lift weight using their feet. The inventors came from calling "MonkeyFeet" a memorable choice that emphasized the unique ability of the product, and the most interesting name for emphasizing the demonstration of legs and strength through the legs with a multifaceted possibility on the lower legs.

And we also decided to use this very device in our athletes. We are confident that this device will further expand its capabilities to our athletes, we used the ChatGPT application, one of the innovative technology of the moment, when considering the research done through this device. This app provided us with a lot of opportunities and encouraged us to gather all the research together and start our new research.

Currently, our athletes are continuing this research process, as we aim to continue it without interruption, given that our athletes are university students.

In our rows in Qui, you will be able to see more clearly through the pictures our special exercises, which are carried out in our athletes.

Effects of monkeyfeet on the muscles of the legs and feet

1. Leg muscles:

* The use of MonkeyFeet actively strengthens the leg muscles, including short and long flexors and extensors. This helps to increase the stability and strength of the leg muscles, which is important for runners and players and for athletes whose sports in which the leg kick must be performed, namely taekwondo, karate and the like, which depend on the stability of the leg.

* Balance and improved qaddi qomat balance: strengthening the small muscles of the leg helps to improve balance and coordination, which reduces the risk of injury during exercise.

2. Lower leg (upper leg and lower leg muscles):

* MonkeyFeet allows you to perform exercises such as lifting or stretching the knee legs, which can help increase the strength of the upper leg muscles and the overall stability of the ankle.

* Improving the tone of the muscles in the lower leg helps to increase endurance and strength in running and jumping.

3. Thigh and butt muscles:

* The use of this equipment allows you to separate the thigh muscles, including the quadriceps, thigh biceps and gluteal muscles, while doing exercises such as leg sprains, leg bends or widening.

* The MonkeyFeet device helps develop strength in the back of the thigh, which is important for improving overall athletic performance and stability in movements involving the lower limbs.

4. Limb joint:

* Thanks to the additional load, MonkeyFeet creates conditions for improving stability and strength in the ankle. This helps prevent injuries such as dislocations and stretches, especially in athletes who often experience drastic changes in the movement vector.

5. Rehabilitation and recovery:

* MonkeyFeet can be useful in the rehabilitation process after lower extremity injuries. Low-intensity exercises that gradually increase the load help restore strength and mobility in the muscles of the legs and feet.

Basic exercises performed with MonkeyFeet:

1. Leg curls (Hamstring Curls):

* The exercise is aimed at developing the back of the thigh and strengthening the lower leg muscles. This is a continuous exercise in which our athletes wear a monkeyfeet device on their feet in the position where their hands first hold the wall and then in the position where the arms are bent and pulled to the chest, with their legs bent at waist height, spreading and bending the knees.



1.5-picture

2. Foot vibrations (foot vibrations):

* Activates the Gluteal and thigh muscles, helps to improve the stability of the pelvis and the strength of the lower extremities.

3. Leg lift (leg lift):

* Focuses on working the muscles of the Hip front thigh and indirectly strengthens the abdominal muscles.



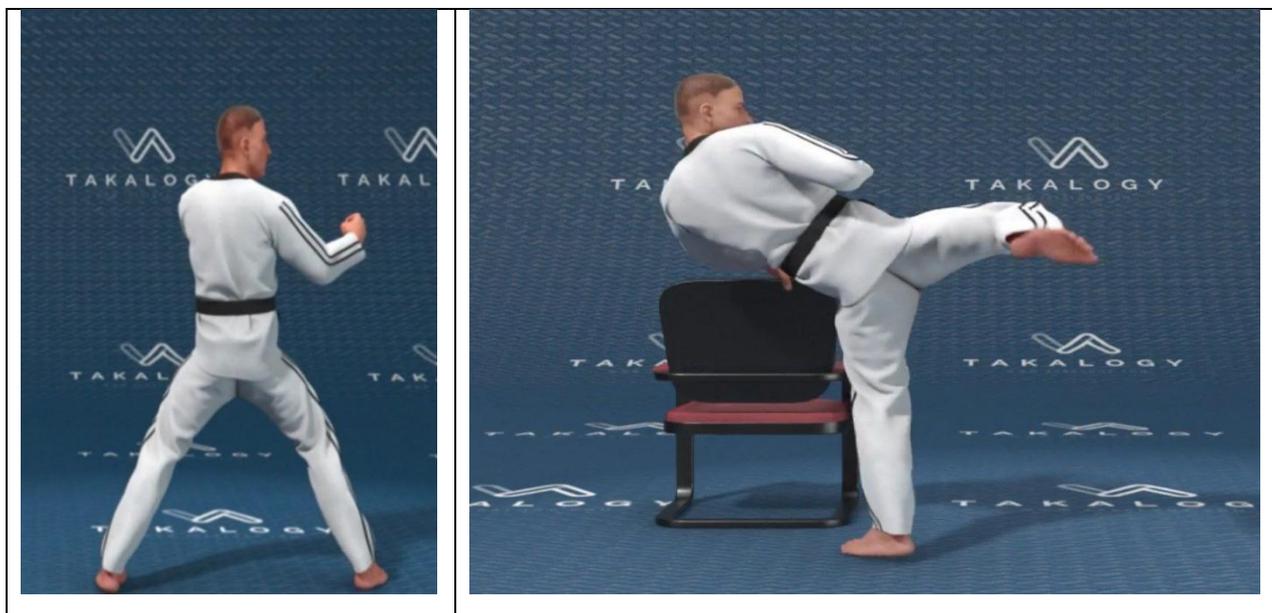
1.6-picture

4. Leg stabilization exercises:

* In this, our athletes help tired muscles by shaking the legs in a position where they are free.

5. Va our most basic exercise, the one that develops our appalchaghi kick.

In this exercise, our athletes stand with their sides, first done by bending and spreading the knees in a position where the right leg is placed forward and then the left leg is placed forward. The seat is used as a reference point for the table.



1.7-picture

Analysis of the research team's results after the exercise

(n=10)

N	Full name	Given tattoos number	Number of hits reached exactly	Percentage of hits indicator
1	Jo'raboyeva Durdona	10	8	80

2	Urazaliyeva Sevinch	10	5	50
3	Abdurasulov Axad	10	7	70
4	Nozimjonov Temur	10	5	50
5	Bozorboyev Davlat	10	8	80
6	Valijonova Dildora	10	6	60
7	Rustamova Ziyoda	10	4	40
8	Ergasheva Gulyora	10	6	60
9	Odilov Humoyun	10	7	70
10	Hakimov Javlonbek	10	9	90

Average percentage value of pre-experience results $(60+20+50+20+60+40+10+40+50+70) : 10 = 42\%$

Average percentage of results after the experiment $(80+50+70+50+80+60+40+60+70+90) : 10 = 65\%$

Absolute total achieved in the group

1) $(65-42) = 23\%$

2) $(23:42) \times 100 = 54.76\%$

As you can see, the performance of our newly introduced innovative technology has increased by 54%, demonstrating the effectiveness of the exercises performed.

Conclusion

Based on the research work carried out in this article, a thorough analysis of the relevance, pedagogical foundations, experimental effectiveness and socio-psychological factors of improving the physical and functional training of Taekwondo players in the development of leg impact accuracy was carried out. Based on the theoretical and practical materials studied, surveys conducted and statistical test results, the following important conclusions were drawn:

1. **Analysis of the results of the questionnaire** has been shown that while Taekwondo players' overall attitude towards sports and physical activity is positive, a large proportion are regularly involved in sports. Low level of physical activity of leg strength, low participation in sports competitions, spending most of the free time on the phone and the internet, as well as poor motivation — all this was determined as factors requiring pedagogical measures of influence.

2. Based on the results obtained, it was proven that taekwondo training has a high health-improving, psychoemotional and motivational potential. The program served to form not only physical qualities in schoolgirls, but also self-confidence, discipline, purposefulness, social adaptation, communicative activity, a positive psychological background.

3. The techniques used during the study – the combination of verbal, visual, practical, exchanging and gaming techniques-increased the effectiveness of the training. The dosage of the exercise load, the target structure of each section and the age-adjusted approach played an important role in the positivity of the results.

4. In general, a complex of methods developed on the basis of taekwondo training is recommended as an effective tool in improving the physical and functional training of taekwondo practitioners, involving them in sports and shaping the need for a healthy lifestyle.

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