

**TEMEL FUTBOL EĞİTİMİNİN ZİHİNSEL ENGELLİLERİN MOTORİK
VE FUTBOL OYUN BECERİLERİNE OLAN ETKİSİ**

**THE EFFECT OF BASIC FOOTBALL TRAINING ON MOTORIC AND
FOOTBALL GAME SKILLS OF INTELLECTUAL DISABILITIES**

Gönderilen Tarih: 03/09/2021
Kabul Edilen Tarih: 20/12/2021

Meltem IŞIK AFACAN

Aydın Adnan Menderes University Faculty of Sport Sciences, Aydın, Turkey

Orcid: 0000-0002-1372-9322

İbrahim KILIÇ

Department of Biostatistics, Afyon Kocatepe University, Afyonkarahisar, Turkey

Orcid: 0000-0003-0595-8771

Temel Futbol Eğitiminin Zihinsel Engellilerin Motorik ve Futbol Oyun Becerilerine Olan Etkisi

ÖZ

Bu çalışmanın amacı, temel futbol eğitiminin hafif düzeyde zihinsel engelli öğrencilerin motorik ve futbol oyun becerilerine olan etkisini incelemektir. Çalışmada, 11'i partnerli (zihinsel engelli olmayan akran) 11'i partnersiz olmak üzere yaşları 15-21 arasında değişen 22 hafif zihinsel engelli erkek öğrenciye 10 hafta süreyle haftada 3 gün, günde 90 dakika futbol eğitimi verilmiş olup öntest ve sontest puanları elde edilmiştir. Futbol temel eğitimi, düşük beceri düzeyine sahip sporcular için hazırlanan Özel Olimpiyatlar bireysel futbol beceri etkinliği, top sürme, şut atma, topla koşma ve ayakla şut atma etkinliklerini içeren 7 istasyon ve 25 maddeden oluşan gözlem formu ile belirlenmiştir. Bununla birlikte öğrencilerin motorik özellikleri Bruininks-Oseretsky motor yeterlilik alt testlerinden ikili koordinasyon (7 madde), denge (9 madde) ve kuvvet (5 madde) olmak üzere üç boyut ve toplam 21 maddeden oluşan gözlem formu aracılığı ile belirlenmiştir. Elde edilen verilerin analizinde betimsel istatistiklerin yanı sıra ilişkili ölçümler için iki faktörlü varyans analizi kullanılmıştır. Araştırma sonucunda, futbol becerisi arttıkça hafif zihinsel engelli bireylerin motor gelişim seviyelerinde artış olduğu görülmüş ve verilen futbol eğitimi ile her iki grubun (partnerli-partnersiz) motor becerilerinin benzer oranda arttığı saptanmıştır.

Anahtar Kelimeler: Futbol, Zihinsel engelli, İkili koordinasyon, Denge, Kuvvet

The Effect of Basic Football Training on Motoric and Football Game Skills of Intellectual Disabilities

ABSTRACT

The aim of this study was to examine the effect of basic football training on motoric and football game skills in students with mild intellectual disabilities. To study participated 22 individuals with mild intellectual disabilities aged 15 to 21, 11 of whom trained in partners and 11 of whom trained non-partners. These students were given football training for 10 weeks, 3 days in a week, 90 minutes a day and pre- and post-test scores were obtained. The football skills of these individuals were determined with an observation form consisting of 7 themes and 25 items. In addition, the fundamental motoric features of the students were determined by means of an observation form consisting of a total of 21 items in three themes: bilateral coordination (7 items), balance (9 items) and force (5 items). Descriptive statistics as well as related measures two-way ANOVA were used in the analysis of the obtained data. As a result of the research, it was observed that as football skill increased, the motor development levels of individuals with mild intellectual disabled increased and it was determined that the motor skills of both groups (with or without a partner) increased at a similar rate with football training.

Key Words: Football, Intellectual disabled, Bilateral coordination, Balance, Strength

INTRODUCTION

American Association on Intellectual and Developmental Disabilities (AAIDD) recognized intellectual disability in 2010; It described them as important limitations in both mental function and adaptive behaviour expressed in conceptual, social and practical adaptation skills¹. Practical skills include skills such as using tools, performing daily life activities. As several studies have shown, it has been proven that individuals with intellectual disabled lag what is considered normal in motoric skills²⁻⁵. The physical appearance, health status and motor skills of children with intellectual disabled vary according to the degree of disability. Expressions of mild, moderate, intense and severe are used to describe the state of intellectual disabled. Based on scores from intelligence tests, these categories reflect the amount of support and support the disabled person needs⁶.

Supports are resources and strategies that contribute to the development, education and health of the intellectual disabled. In the sports environment, children with mild intellectual disabled should be supported by the trainer and belong to an organization that provides the appropriate environment for their sports participation⁶. Because the difficulties that children with intellectual disabled face in adaptive behaviour, such as following programs and routines and social interaction, are also manifested in the inability to coordinate teamwork in sports⁷. Certain organization-related methods have proven successful in helping children with intellectual disabled learn and participate in activities. For example, the Special Olympic Unified Sports, a large organization organized for the intellectual disabled, is fun and supports children with mild intellectual disabled. Such sports activities, which occur in a controlled environment and where participation is high, provide successful experiences for children with intellectual disability. Individuals with intellectual disabled have a variety of abilities and potentials. Educators should be prepared to accept this diversity¹ and identify appropriate activities. In order not to add other obstacles to the existing obstacle, they should be ensured to be in regular activity using all areas of physical education and sports. It is recommended that games played alongside recreational sports should be close to their physical and mental level. It is very important for people with intellectual disabilities to be able to integrate into society. Sportive activities are an important means of integrating with the society and getting rid of exclusion⁸.

Football is one of the most important activities covering various activities that can be adapted to the interests and abilities of people with intellectual disabled and can be performed at a low cost. In applying the basic techniques of football, strength, balance, and coordination are important motor skills. For example, the player who meets the ball should balance hand-eye and foot coordination and have sufficient strength to hit the ball in the desired direction and accurately⁹. Sports activities ensure that muscles are plump, flexible, healthy, strong and durable tissues. It is maintained as long as this development continues¹⁰. Compared to their normally developing peers, people with intellectual disabled have lower levels of motor skill performance¹¹. Moreover, this poor motor skill performance negatively affects activities of daily living¹². People with intellectual disabled often have problems motor learning and developing motor movement patterns; the basis of motor learning lies in cognitive processes.

Football was included in the study because of its high popularity and relatively easy access around the world. Because movement consists of mental action, sensory nerve

stimulation, the central nervous system's internal actions, and external physical movement⁹, it becomes easier to apply and learn concrete tasks and information. Physical orientation, manipulation of body parts, demonstration or modelling methods should accompany verbal instruction. As a demonstration or modelling method, it is a very effective method to include intellectual disabled children in the activity with their peers who do not have disabled in skill teaching¹. It is also possible to see an example of this method in the football branch in the Special Olympics Unified Sports. The study in which groups were separated as partners (peers without intellectual disabled) and without a partner was aimed to determine the effect on football and motoric skills of basic football training in the mild intellectual disabled.

The hypotheses of the research within the framework of this basic objective are presented below.

Hypothesis-1: Basic football training has a significant and positive effect on football skills in individuals with mild intellectual disabled.

Hypothesis-2: Basic football training has a significant and positive effect on motoric skills in individuals with mild intellectual disabled.

Hypothesis-3: There is a significant and positive relationship between football and motoric skills in individuals with mild intellectual disabled.

This study is considered important in terms of showing how to overcome the difficulties they face in motor movements with football, which is an activity that people with intellectual disabled are interested in, and its contribution to the literature.

MATERIALS AND METHODS

Research Design and Participants

This study was designed as a pre-test/post-test experimental design. The population of study is high school students with mild intellectual disabled at Afyon Karahisar. The study sample consisted of 22 mild intellectual disabled students between the ages of 15 and 21 who studied in special education and vocational schools. Participants who did not have a second disability, did not participate in another training program and participated in the tests with the football basic training program were included in the study. Participants were excluded from the study if they were unable to participate in the football basic training program and tests, had a second disability, or were participating in another training program. The studies were carried out on the football field of the school where after-school students were trained. In the studies, intellectual disabled students were divided into two groups of 11. In the studies, one group of intellectual disabled students was accompanied by a partner (a peer without an intellectual disabled) between the ages of 15 and 21. In contrast, another group continued the studies without a partner. The groups, which were separated by random sampling method^{13,14} by drawing lots, received basic football training for 90 minutes a day, 3 days a week for 10 weeks. The pretest and posttest scores of the intellectual disabled individuals were taken before and after the 10-week study program. The football and motoric skills of the groups were measured in the pretest and posttests. There are studies on the use of these tests in individuals with intellectual disabled^{1,15}.

Data Collection

In the study, an assessment form consisting of 25 items and 7 stations was prepared to determine students' basic football skill levels with intellectual disabled¹. The Bruininks Oseretsky motor proficiency test is designed to attract the attention of the participants, to provide a uniform application, and to facilitate the application and evaluation. In addition, this test is a tool designed to provide therapists, physical therapists, physical education teachers, researchers, and other practitioners with an effective and reliable measure of fine and gross motor control skills. Comprehensive test materials consisting of 3 subtests and 21 substances, including bilateral coordination (7 substances), balance (9 substances) and strength (5 substances), were applied from Bruininks-Oseretsky motor competence subtests, which were applied individually to determine motoric skills. It takes 30-45 minutes to apply all 21-item subtest materials to an intellectual disabled. The highest score that can be obtained from this test was determined as 103. The scores recorded during the test procedure are the raw scores of the students. After the test is complete, these raw scores are converted into point scores and then into points obtained. The conversion scale given in the personal registration form was used to convert raw points to point scores. The point score was recorded in the circle on the personal registration form's first right¹⁶. Pre-test and post-test measurements were made by the same researcher in order for the evaluation to be standardized.

Bilateral Coordination (7 items): Bilateral coordination consists of 7 sub-items; touching nose with fore fingers-eyes closed, jumping jacks, jumping in place-same sides synchronized, jumping in place-opposite sides synchronized, pivoting thumbs and forefingers, tapping feet and fingers-same sides synchronized, tapping feet and fingers-opposite sides synchronized. The total best score for the bilateral coordination test was calculated as 24¹⁶.

Balance (9 items): The balance consists of 9 sub-items; Bruininks-Oseretsky test of motor proficiency balance tests comprised nine parts (1. Standing on a line with eyes open and feet at a forward angle, 2. Walking forward on a line, 3. Standing on a line with one leg and eyes open, 4. Standing on a line with eyes closed and feet at a forward angle, 5. Walking forward on a line on tiptoes and heels, 6. Standing on a line with one leg and eyes closed, 7. Standing on balancing equipment with one leg and eyes open, 8. Standing on balancing equipment with the tip of a foot touching a heel, 9. Standing on balancing equipment with one leg and eyes closed). The total motor score was calculated as the best score for the BOT-2 balance test was 37¹⁶.

Strength (5 items): Strength consists of 5 sub-items; standing, long jump, knee push-ups or full push-ups, sit-ups, Wall sit and V-up. The overall best score for the strength test was calculated as 42¹⁶.

Football Skill Test: The Special Olympics individual football skills event, prepared for athletes with low skill levels, includes dribbling, shooting, running with the ball and shooting with the foot¹. In the training program, ball control (5 items), coordination with the ball (3 items), passing (3 items), dribbling (3 items), ball control (3 items), shooting (3 items), and with the ball movement, an evaluation form was prepared to consist of 25 items and 7 stations.

Exercise Program Description

Students who study at the Department of Physical Education Teaching at the Faculty of Sports Sciences, take physical education and sports lessons for the disabled and who are football coaches voluntarily participated in the studies. On the first training day, information was given about football and football material promotion. To prevent injury, jogging and stretching exercises were done around the football field before the exercise. The warm-up session lasted 10 minutes. After warming up, participants practised basic football techniques as partners (peers without intellectual disabled) and without partners. Under the control of volunteer coaches, each session in the basic football technical training lasted 10-12 minutes, and a water break was given between the exercises. In practice, the private education school materials (such as ball, funnel, castle) were used. After the football technical training, stretching exercises were done, and the study was ended. The basic football training application program for intellectual disabled students were presented in Table 1.

Table 1: Football Training Application Program

Period	Activities	Minute
Pretest before the basic football skills program		
Information meeting for parents and participants before the training program		
Information	Training explanation	10
Warm-up	Jogging around the field and mobility exercises	10
Technical training (with a partner and without a partner)	Ball control: Controls the ball with the inside of the foot Controls the distance of the ball from the foot While controlling the ball, the head looks ahead	45
	Passing: Stops at target Throws a pass on target.	
	Dribbling: Gives control while dribbling Uses the inside and outside of the feet	
	Shoot on target: Makes a Shooting Applies the shooting technique Throws the ball on the target	
In-group match	With a partner Without a partner	15
Cool-down	Stretching	10

(Winnick and Porretta, 2017)¹

Procedure

Parents of all participants in the study signed written informed consent. The study was approved by the Afyon Kocatepe University Research Ethics Committee (Desicion no:2017/39). Before the basic football training started, the parents of the students who participated in the studies were informed by the researcher's study. At the meetings, information was given about the content of the basic football training program.

Data Analysis

In the study, in addition to some descriptive statistics, because the data were normally distributed and the variances were homogeneous, the effect of basic football training on football skills and motor development levels was determined by two-way variance analysis (repeated measures two way ANOVA) for repeated measurements. The relationship between football skill and motoric skills was determined by Pearson correlation analysis. In the study, SPSS 21.0 for Windows Statistical Package Program was used to analyze the data obtained.

FINDINGS

Table 2. Descriptive Statistics on The Age and Disability Levels of Participants

Değişken	n	Min.	Max.	\bar{X}	SS
Age	22	15	21	16.68	1.78
Disability levels (%)	22	44	70	50.63	4.50

According to Table 2, the average age of people with mild intellectual disabled, whose ages range from 15 to 21, is $\bar{X}=16.68$, while their disabled levels range from 44% to 70%, and their average is $\bar{X}=50.63$. Findings regarding the effect on football skills of basic football training are presented in Table 3.

Table 3. Findings of The Effect on Football Skills of Basic Football Training

Variables	Groups	Football Skills Pre-test		Football Skills Post-test		Change %	P ₂	P ₃
		\bar{X}	SS	\bar{X}	SS			
Station 1: (ball control) (1-5)	Without partner	2.25	0.71	3.03	0.60	15.60	<0.05	NS
	With partner	3.54	1.09	4.34	0.85	16.00	<0.05	
	P ₁	< 0.05		< 0.05				
Station 2: (coordination) (1-5)	Without partner	2.40	0.94	3.18	0.53	15.60	<0.05	<0.05
	With partner	3.40	0.66	4.59	0.34	23.80	<0.05	
	P ₁	< 0.05		< 0.05				
Station 3: (passing) (1-5)	Without partner	3.15	0.56	3.84	0.45	13.80	<0.05	NS
	With partner	3.78	0.91	4.42	0.66	12.80	<0.05	
	P ₁	NS		< 0.05				
Station 4: (dribbling) (1-5)	Without partner	2.63	0.60	3.18	0.34	11.00	<0.05	<0.05
	With partner	3.00	0.74	4.39	0.46	27.80	<0.05	
	P ₁	NS		< 0.05				
Station 5: (ball control) (1-5)	Without partner	2.42	0.66	3.30	0.62	17.60	<0.05	<0.05
	With partner	3.57	0.57	4.78	0.22	24.20	<0.05	
	P ₁	< 0.05		< 0.05				
Station 6: (shooting) (1-5)	Without partner	3.00	0.94	3.90	0.57	18.00	<0.05	<0.05
	With partner	3.30	0.83	4.87	0.30	31.40	<0.05	
	P ₁	NS		< 0.05				
Station 7: (with the ball movement) (1-5)	Without partner	2.40	0.93	3.11	0.42	14.20	<0.05	<0.05
	With partner	2.79	0.67	4.09	0.42	26.00	<0.05	
	P ₁	NS		< 0.05				

P₁: inter-group significance P₂: inter-test significance P₃: group*time interaction NS: Not Significant

According to the findings in Table 3, a statistically significant difference was found between the pretest and posttest averages of both the without a partner and with partner groups at all stations. (p<0.05). In other words, it was found that basic football

training, which lasted for 10 weeks, had a significant and positive effect on the football skills of individuals with mild intellectual disabled who trained both without a partner and with a partner. This positive effect or the increase in basic football skills ranges from 11% to 31.40%. On the other hand, while the group (with partner-without partners) time (pretest-posttest) interaction was not found significant at the 1st and 3rd stations ($p > 0.05$), the group*time interaction was found to be significant in the other stations ($p < 0.05$). Clearly, with the football training given at the 1st and 3rd stations, a similar increase (positive effect) was achieved in both groups (with and without partners). It was determined that the increase in one group was not different from the other group's increase. At other stations, a greater increase was achieved in partnered groups. Findings regarding the effect on motoric skills of basic football training are presented in Table 4.

Table 4. Findings of the Effect on Motoric Skills of Basic Football Training

Variables	Groups	Motoric skills Pre-test		Motoric skills Post-test		Change %	P ₂	P ₃
		\bar{X}	SS	\bar{X}	SS			
		P ₁		P ₁				
Bilateral (Hand-eye coordination) (0-24)	Without partner	11.36	5.40	16.54	5.06	21.58	< 0.05	< 0.05
	With partner	14.63	6.39	21.36	2.20	28.04	< 0.05	
	P ₁	NS		< 0.05				
Balance (0-37)	Without partner	13.54	7.75	24.54	4.15	29.73	< 0.05	NS
	With partner	25.09	5.08	32.81	3.45	20.86	< 0.05	
	P ₁	< 0.05		< 0.05				
Strength (0-42)	Without partner	20.36	4.75	25.54	3.80	12.33	< 0.05	NS
	With partner	27.27	4.85	32.18	2.44	11.69	< 0.05	
	P ₁	< 0.05		< 0.05				

P₁: inter-group significance P₂: inter-test significance P₃: group*time interaction NS: Not Significant

According to Table 4, a statistically significant difference between pretest and posttest in motoric skills (bilateral, balance, strength) was found in with a partner and without partner groups ($p < 0.01$). In short, it was determined that the basic football training given had a significant and positive effect on motoric skills in terms of bilateral balance and strength. This positive impact rate ranges from 11.69% to 29.73%. In addition, group * time interaction was not found significant ($p > 0.05$). This, in turn, showed that both groups' motor skills (with and without partners) increased at a similar rate with football training. There were no significant differences between the groups with and without partners regarding the rate of positive impact on motoric skills. Pearson correlation coefficients for the relationship between football and motoric skills level posttests are presented in Table 5.

Table 5. Correlation Coefficients for The Relationship Between Football Skills and Motor Skills

Football Skills	Motor Skills		
	Bilateral Hand-eye coordination	Balance	Strength
Ball control	0.694**	0.602**	0.545**
Coordination	0.536*	0.722**	0.708**
Passing	0.312	0.547**	0.503*
Dribbling	0.317	0.754**	0.697**
Ball control	0.509*	0.628**	0.778**
Shooting	0.157	0.696**	0.664**
With the ball movement	0.333	0.829**	0.745**

* $p < 0.05$; ** $p < 0.01$

According to Table 5, positive and significant relationships were found between the seven stations for football skill and the balance and strength for motoric skills. The lowest $r = 0.503$ and the highest $r = 0.829$ ($p < 0.05$). In other words, as football skills increased, it was found that the “balance” and “strength” of individuals with mild intellectual disabled related to the level of motoric skills also increased. However, significant and positive correlations were found between ball control, coordination, ball control and bilateral coordination (hand-eye coordination) ($p < 0.05$). However, the relationships between other football skill stations (passing, dribbling, shooting, with the ball movement) and bilateral coordination (hand-eye coordination) were not statistically significant ($p > 0.05$).

DISCUSSION

This study was aimed to determine the effect on motoric skills and football game skills of basic football training in the intellectual disabled. As a result of the research, it was found that basic football training had a significant and positive effect on the football skills of individuals with mild intellectual disabled who trained both without a partner and with a partner (peer without intellectual disabled). On the other hand, football training increased more with partner groups in coordination, dribbling, ball control, shooting, and ball movement.

While understanding team play rules are difficult for intellectual disabled people, football is often a popular game among adolescents with mild intellectual disabled who have limited intelligence. Intellectual disabled individuals can learn the rules and improve their football skills through concrete teaching strategies¹. Regarding unified activities, Winnick and Porretta, (2017)¹ stated that the participation of intellectual disabled children in activities with their peers who have normal intelligence benefits their development. Different studies on football reveal findings of the development of football skills of intellectual disabled individuals. For example, Baran et al. (2013)¹⁷ indicated that football skill performances of young people with mild intellectual disabled increased with the unified football program. Another study emphasized that the intellectual disabled group participating in unified football training had improved game performance¹⁸. Payne et al. (2010)¹⁹ stated that in addition to concrete demonstrations and visual cues in the basic teaching strategies of the intellectual disabled, assigning a peer to the child to provide extra clues during the activity will also be beneficial in their development. Chen et al. (2019)²⁰ found that young adults without intellectual disabled showed a significant difference in football skills compared to young adults with intellectual disabled during the pre-test.

The posttest showed a significant effect size on the football skills of intellectual disabled youth. As a result, they found that the inclusive football program benefited in young adults with and without intellectual disabled. In another study on football, Barak et al. (2019)²¹ found a significant increase in football skills in the intellectual disabled group before and after testing.

Winnick and Short (2014)²² stated that children with mild intellectual disabled who need intermittent or limited support have the opportunity to improve their motor skills. In the study, a statistically significant difference was found between pretest and posttest in the motor skills (bilateral, balance, strength) of with partner and without partner groups. In other words, it was determined that basic football training had a significant and positive effect on motor skills in terms of bilateral, balance and strength. A balanced position should be provided in football when running fast, changing direction, passing or shooting, and hitting the ball strongly. Simultaneously, the player should maintain his balance when blocked by an opponent²³. While playing football, one-leg balance is also required to perform different technical movements such as shooting, dribbling and passing²⁴. These technical practices during the game support the development of bilateral coordination balance and strength. Pant et al. (2006)²⁵ reported that students with high muscle strength have better balance skills in the relationship between balance and strength. Çalık et al. (2019)²⁶ found that the balance and coordination scores of participants with mild and moderate young intellectual disabled who played football increased. There was a significant positive relationship between all balance and coordination subtests and the time they played football. Biswas and Alagesan (2019)²⁷ concluded that the unified football training program for male athletes with mild intellectual disabled made significant motor skill development changes, such as speed and muscle endurance. A different study, it was found that one weekly football program with a group of intellectual disabled adults did not show any significant changes in lower-extremity strength or balance²¹.

It is accepted that intellectual disabled people are behind their normal peers in physical and motor development. It is important to increase the frequency of studies to ensure development¹. Pitetti et al. (2017)²⁸ reported that intellectual disabled male youth are below the expected age-related competence in static and dynamic balance, bilateral coordination and upper extremity coordination skills. People with intellectual disabled have difficulty developing practical skills and being poor in performing motor tasks that require a combination of two activities²⁹. Football is a sports branch that requires proper coordination of different body parts-hands, eyes and feet³⁰. The study found that as football skills increased, the balance and strength of people with mild intellectual disabled related to motor skills also increased. Significant and positive relationships were found between football skills such as ball control, coordination and ball control and bilateral coordination. Significant and positive relationships were found between football skills and bilateral coordination such as ball control, coordination and ball control. Applying a modified football training program for the intellectual disabled, Tiu et al. (2012)³¹ emphasized the importance of foot-eye coordination skills in football by stating that the participants improved their foot-eye coordination skills. Vuijk et al.(2010)³² stated that there is a relationship between intellectual disabled and ball skills. It stated that it is important in improving the motor skill performance of children with mild intellectual disabled.

The relationships between football skills such as passing, dribbling, shooting, and ball movement and bilateral coordination were not statistically significant in the study. In contrast, Montesano (2014)³³ found that intellectual disabled children who participated in extra two hours of football training at school increased in pass and shot percentages with improved coordination skills improved. Another study stated that the football training program, especially focused on developing passing, dribbling and shooting skills, improved foot-eye coordination skills³¹. Barak et al. (2019)²¹ found that the intellectual disabled group participating in the football program improved the final test values in their football skills in shooting, dribbling, stopping and passing.

As a result, the study shows that the basic football training program, which provides experimental support to the literature, can increase the motor and football skills of the intellectual disabled. Football, a fun group activity with simple equipment and basic environmental conditions, should be included in the sports training programs of special education institutions due to its features that support the development of intellectual disabled individuals.

CONCLUSION AND SUGGESTIONS

In this study, it has been revealed how people with intellectual disabled can overcome difficulties in motor movements with football, which is an activity they are interested in. The findings showed that as football skill increased, the motor development levels of individuals with mild intellectual disabled increased. In addition, it was determined that the motor skills of both groups (with and without a partner) increased at a similar rate with football training. Therefore, it is important to follow the development of intellectual disabled children in the long term, starting from an earlier age. A coordinated approach is required in order for the sports programs applied to children with intellectual disabled to be well planned and sustainable. For this, sports branches that will provide different motor skills in physical education classes and which will be put into practice by arranging according to the competency and suitability levels of intellectual disabled individuals should be included. It is considered important to increase the number of teams in the football league for the intellectual disabled in order to ensure the continuity of the acquired motor skills.

REFERENCES

1. Winnick JP., Porretta DL. (2017). Adapted physical education and sport. Sixth Edition. | Champaign, IL: Human Kinetics.
2. Putten VD., Houwen S., Vlaskamp C. (2013). Motor functioning in people with severe or profound intellectual disabilities: A neglected opportunity for research? A systematic review. Round table meeting, SIRG-PIMD - Groningen, Netherlands.
3. Houwen S., Visser L., Putten VD., Vlaskamp C. (2016). The interrelationships between motor, cognitive, and language development in children with and without intellectual and developmental disabilities. *Research in Developmental Disabilities*. 53(54), 19-31.
4. Blomqvist S., Olsson J., Wallin L., Wester A., Rehn B. (2013). Adolescents with intellectual disability have reduced postural balance and muscle performance in trunk and lower limbs compared to peers without intellectual disability. *Research in Developmental Disabilities*. 34(1), 198-206.

5. Westendorp M., Houwen S., Hartman E., Visscher C. (2011). Are gross motor skills and sports participation related in children with intellectual disabilities? *Research in developmental Disabilities*. 32(3), 1147-1153.
6. Hassan D., Dowling S., McConkey R. (2014). *Sport, coaching and intellectual disability*. Taylor & Francis eBooks. Routledge.
7. DeLany JV., Pendzick MJ. (2009). *Working with children and adolescents: a guide for the occupational therapy assistant*. Upper Saddle River, NJ: Pearson/Prentice Hall.
8. Savucu Y. (2019). Uyarlanmış beden eğitimi ve spor. İçinde: Çelik Kayapınar F. (editör). *Zihinsel yetersizliğe sahip bireyler*. 2. Baskı. Ergün Yayınevi. İzmir. 67-70.
9. Eminovic F., Pacic S., Nikic R., Likic D., Nazarkin JA. (2010). Effects of phase fibrotomy on a range of motion and motor functions. *PONS*, 7(2), 71–74.
10. Atalay Güzel N., Kafa N. (2016). *Engellilerde spor ve sınıflandırma*. 1. Baskı. Gazi Kitabevi. Ankara. 163.
11. Pitetti K., Miller, RA., Loovis, EM. (2018). Balance and coordination proficiency of age-matched male and female children and adolescents with intellectual disabilities. *Adapted Physical Activity Quarterly*, 35(2), 175-195.
12. Chen MD., Tsai HY., Wang CC., Wuang YP. (2015). The effectiveness of racket-sport intervention on visual perception and executive functions in children with mild intellectual disabilities and borderline intellectual functioning. *Neuropsychiatric Disease and Treatment*, 11, 2287.
13. Yamane T. (2001). *Basic sampling methods*. Esin, A., Bakir MA, Aydın C., Gurbuzsel E. (Editör). Literatur Publishing. Istanbul.
14. Ural A., Kiliç İ. (2011). *Bilimsel araştırma süreci ve SPSS ile veri analizi*. Detay Yayıncılık. Ankara.
15. Işık M., Zorba E. (2020). The effects of hemsball on the motor proficiency of students with intellectual disabilities. *International Journal of Developmental Disabilities*. 66(2), 104-112.
16. Bruininks RH., Bruininks BD. (2005). *Bruininks-Oseretsky test of motor proficiency second edition manual (BOT-2)*. USA: Pearson Clinical Assessment.
17. Baran F., Aktop A., Özer D., Nalbant S., Ağlamış E., Barak S., Hutzler Y. (2013). The effects of a Special Olympics Unified Sports Soccer training program on anthropometry, physical fitness and skilled performance in Special Olympics soccer athletes and non-disabled partners. *Research in Developmental Disabilities*, 34(1), 695-709.
18. Montesano P., Tafuri D., Esposito A., Gigante F., Salzano E., Viscido G., Mazzeo F. (2013). Conditional abilities in young Special Olympics athletes who practice unified football. *Journal of Physical Education and Sport*. 13(4), 504-510.
19. Payne GV., Yan JH., Block M. (2010). *Human motor development in individuals with and without disabilities*. Nova Science Publishers, Inc. 19-20.
20. Chen CC., Ryuh YJ., Fang Q., Lee Y., Kim ML. (2019). The effects of inclusive soccer program on motor performance and sport skill in young adults with and without intellectual disabilities. *Journal of Developmental and Physical Disabilities*. 31(4), 487-499.
21. Barak S., Oz M., Dagan N., Hutzle Y. (2019). The Game of Life soccer program: Effect on skills, physical fitness and mobility in persons with intellectual disability and autism spectrum disorder. *Journal of Applied Research in Intellectual Disabilities*. 32(6), 1401-1411.

22. Winnick J., Short FX. (2014). Brockport physical fitness test manual: a health-related assessment for youngsters with disabilities. Human Kinetics.
23. Gerbino GP., Griffin ED., Zurakowski D. (2007). Comparison of standing balance between female collegiate dancers and soccer players. Gait Posture. 26(4), 501-507.
24. Paillard T., Noe F., Riviere T., Marion V., Montoya R., Dupui P. (2006). Postural performance and strategy in the unipedal stance of soccer players at different levels of competition. Journal of Athletic Training. 41(2),172-176.
25. Pant H., Sukumar K., Sharma H., Pandey AK., Goel SN., Roorkee IIT. (2006). Correlation between muscles strength in relation to dorsiflexion, planterflexion, eversion and inversion strength with body balance. Journal of Biomechanics. 39(1), 557.
26. Çalık B., Bas Aslan, U., Aslan Ş., Erel S. (2019). Relationship between balance and coordination and football participation in adolescents with intellectual disability. South African Journal for Research in Sport, Physical Education and Recreation, 41(2), 1-9.
27. Biswas B., Alagesan S. (2019). Impact of Special Olympics football and basketball Practices in unified mode on selected physical fitness components among intellectually disabled mild male athletes. International Journal of Physiology, Nutrition and Physical Education. 4(2), 251-255
28. Pitetti K., Miller RA., Loovis M. (2017). Balance and coordination capacities of male children and adolescents with intellectual disability. Adapted Physical Activity Quarterly. 34(1), 1-18.
29. Szymanska AJ., Mikolajczyk E., Wojtanowski W. (2012). The effect of physical training on static balance in young people with intellectual disability. Research in Developmental Disabilities. 33(2), 675-681.
30. Bhootra AK. (2008). Elite sports and vision. Jaypee Brothers Publishers.
31. Tiu W., Salipot CL., Maquiraya CA., Burkley DM., Castaneda M., Gomez MG. (2012). Effects of a modified football program in improving foot-eye coordination among students with intellectual disability. Educational Research. 3(4), 412-423.
32. Vuijk PJ., Hartman E., Scherder E., Visscher C. (2010). Motor performance of children with mild intellectual disability and borderline intellectual functioning. Journal of Intellectual Disability Research. 54(11), 955-965.
33. Montesano P. (2014). Improvement of the coordination skills in disabled athletes Special Olympics. Journal of Physical Education and Sport. 14(2), 301-305.