



## Effects of accuracy training for individuals with various disabilities in inclusive game Baskin

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**Introduction.** Numerous studies have indicated the positive effects of adapted sports programs on enhancing the sports skills of individuals with multiple forms of disabilities. **Aim.** The aim of this research was to examine the extent of changes over four time series in the aspect of accuracy in the inclusive sport of Baskin for individuals with physical and intellectual disabilities. **Methods.** Nine participants, four with motor disabilities and five with intellectual disabilities, with an average age of ( $28.92 \pm 11.02$ ), took part in this study. An accuracy assessment test was conducted from three positions from which players in the role of 2 can shoot in situational Baskin play. **Results.** No significant effect of the interaction between time and type of disability was found (Wilks'  $\lambda = .92$ ,  $p = .93$ ,  $F(3.5) = .14$ , partial  $\eta^2 = .08$ ). The separate effect of the two types of disabilities was not significant ( $F(1, 7) = 1.304$ ,  $p = .29$ , partial  $\eta^2 = .157$ ), from which it can be concluded that there was no significant improvement either in the group of participants with intellectual disabilities or in the group of participants with motor disabilities. **Conclusions.** The results indicated that there were no statistically significant differences between the four measurements, nor were there statistically significant improvements between the groups of participants.

**Keywords:** adapted sports, intellectual disability, physical disability

### Introduction

The sedentary behavior patterns of individuals with intellectual disabilities are indicated by results from previous studies (Sundahl et al., 2016; Yanardag et al., 2013). Research indicates lower levels of physical activity in children with intellectual disabilities compared to their typically developing peers (Einarsson et al., 2015). For individuals with disabilities, there are numerous integrated sports available, such as adapted football (Magnanini et al., 2018), various Special Olympics sports, and the integrated sport of modified

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basketball played together by individuals with and without disabilities, called Baskin. The main goal of this game, which originated in the Italian city of Cremona in 2003, is identical to traditional basketball – to score more points than the opposing team. Each team consists of players with and without disabilities. It can be concluded that Baskin, through all the modifications of the rules, has preserved the pulsating core of the sport with all its attributes and the desire to give maximum effort to contribute to victory, without taking a stance of pity, as success in this game depends on everyone's performance (Belfiore & Tafuri, 2023), rejecting the “tragic stereotype” without pity or mercy that is often not rooted in genuine empathy (Cioni et al., 2025). Research results indicate the benefits of implemented experimental treatments of adapted basketball on strength parameters in individuals with intellectual disabilities (Franciosi et al., 2012; Guidetti et al., 2009; Tsimaras et al., 2009), on improving physical fitness (Kocić et al., 2017; Matković et al., 2024), as well as on enhancing basketball skills in adolescents with intellectual disabilities (Stanišić et al., 2012; Tsikraki et al., 2007) and in adults with intellectual disabilities (Gallotta et al., 2025).

Through material adaptations, such as the use of multiple baskets and the option to change the basketball to smaller-sized balls according to players' needs, as well as spatial adaptations that create new protected side zones to provide safety for positioned players and autonomy when shooting at side baskets, greater inclusion is achieved. The next type of adaptation refers to rule modifications, ensuring that each player has a role defined according to their motor abilities. Defensive actions are only allowed between players of the same role, meaning that each player has a direct opponent with equivalent capabilities. Communication adaptations involve assigning a mentor player from the team, who can monitor and support the actions of a teammate with a disability, either directly or indirectly.

Testing the motor skills of individuals with disabilities presents a unique challenge for several reasons. In addition to the heterogeneity in the ability levels of participants, potentially disruptive factors may include additional limitations such as physical or sensory impairments, as well as motivation to participate and reactions to the testing situation itself, which can provoke anxiety among participants. The adaptation of game rules through the introduction of additional sectors and hoops in the inclusive sport of Baskin aims to create an environment that allows individuals with severe disabilities to express their motor potentials through shooting accuracy. Ongoing revisions of the game rules are designed to create an even more inclusive environment and further motivate all potential participants to engage in this sport for everyone. The shooting accuracy of individuals with disabilities has been the subject of numerous scientific studies, and there are even specific test batteries that particularly verify this motor skill in adapted physical exercise.

The evaluation of accuracy has been the subject of research among elite adult wheelchair basketball players (Fay et al., 2013), as well as among individuals with intellectual disabilities, including adolescents (Baldari et al., 2009; Franciosi et al., 2010; Hemayattalab & Movahedi, 2010; Shapiro & Dummer, 1998). Adolescents with conduct disorders have also been studied through various basketball programs (Mañano et al., 2007), along with the impact of Special Olympics programs on the basketball skills of adolescents with intellectual disabilities (Castagno, 2001), the shooting accuracy of adults with Down syndrome (Cai & Baek, 2022), and adult wheelchair basketball players (Shigematsu et al., 2022).

Considering the importance of pivot players in contributing to the final result in this game (Milošević, 2024; Milošević et al., 2025; Sisti et al., 2021), the aim of this study was to analyze the effect of Baskin training focused on the motor skill of accuracy for players with roles 2 and 2R with intellectual and motor disabilities.

Role 2 player, a person with a disability, who has partial or complete ability to use the hands to shoot, can score points on side baskets and can walk on the court. Players in this role are independent in their movement and are positioned in the side sector. The 2R role refers to a player with more developed mobility, allowing for quick movement, but whose motor skills are not functional within the game context. This means the player shoots from beyond the non-continuous line, positioned 3.70 meters from the hoop, and has 7 seconds to take the shot (Milošević, 2023).

## **Aim**

The aim of this research was to examine the magnitude of changes over four time series in the aspect of accuracy in the inclusive sport of Baskin for individuals with physical and intellectual disabilities.

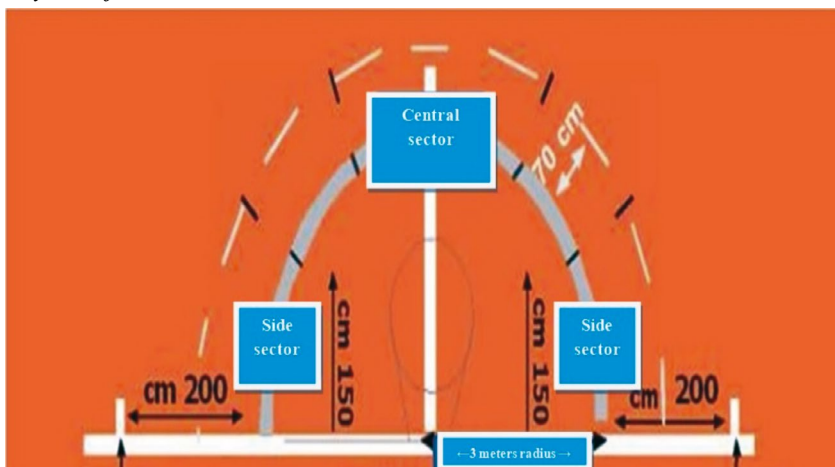
## **Method**

The sample consisted of 9 individuals with disabilities: among the five with intellectual disabilities, there were three women and two men, while among the four with motor disabilities, there were three men and one woman. All participants with intellectual disabilities had moderate intellectual disability, while the group of participants with motor disabilities included individuals with cerebral palsy and one participant with muscular dystrophy. The testing was conducted during Baskin training sessions held at the Zorka Sports Hall in Šabac, within the Baskin section of the Sports Association of Persons with Disabilities Šabac. The testing was carried out by certified sports and physical education teachers. The group of participants with intellectual disabilities had an average age of 21.99 years, compared to the group of participants with motor disabilities, whose average age was 37.59 years. The average age of the entire sample of participants was 28.92 years.

The testing protocol involved a total of 15 shots from three positions: two side sectors and one central sector, at a distance of 3 meters or 3.70 meters for players in the 2R role (Figure 1). From each of the three positions, the participant had five shooting attempts.

**Figure 1**

*Layout of the Side Sector*



The time limit for a shot was 10 seconds from the moment the ball was taken in hand, or 7 seconds for the 2R role. Before taking the shot, the ball was placed in the central part of the side sector on a stand. The player would take the ball, and from that moment, the countdown for the shot began. If the player did not make the shot within the time limit, it was considered a miss.

### **Description of the Accuracy training**

After the initial testing was conducted, the participants began the implementation of the experimental treatment, which lasted for three months and included three training sessions per week, each lasting 60 minutes (Monday, Wednesday, and Friday). After the first month of the experimental treatment, the participants were tested, and the same procedure was repeated after the second month. At the end of the treatment, final testing of the participants' shooting accuracy was carried out.

In the introductory part, all participants performed basic manipulative exercises with a size 5 basketball, which is used in Baskin. In the main part of the training, each participant shot between 100 and 150 times at the basket, always from a distance of 3 meters or 3.70 meters, from positions where they would shoot in situational conditions. The final phase of the training was reserved for a precision relay game, in which the players were divided into two groups and competed to see which team would be the first to score 10 points in the side high basket (2.20 meters high).

A repeated measures multivariate analysis of variance (assessing the impact of three months of accuracy training for individuals with disabilities) compared the results of the number of points scored on accuracy tests obtained in four time series M1 (at the beginning of the program), M2 (after one month), M3 (after two months), and M4 (after three months).

### Statistical Analysis

To examine the effectiveness of accuracy training across four control measurements in individuals with disabilities in the inclusive game of Baskin, repeated measures multivariate analysis of variance (MANOVA) was applied to determine the interaction effects between time and type of disability, as well as the main effects of each factor. The assumptions of sphericity and homogeneity of variances were tested using Mauchly's test and Levene's test. Partial eta squared was used to report the effect size of the changes (Cohen, 1988).

### Results

Analysis of the Mauchly's test values indicated that the assumption of sphericity was not violated ( $p = .57$ ). Observing the Levene's test values, it is evident that the assumption of homogeneity of variances was violated at the first ( $p = .03$ ) and third measurement points ( $p = .00$ ). These measurements refer to the initial testing (T1), the phase following the intervention (T3), as well as subsequent measurements throughout the repeated-measures timeline. Due to these violations, a stricter significance level ( $p < .01$ ) was applied when interpreting the results.

**Table 1**

#### *Basic Descriptive Statistics*

| Measurement | Type of Disability | Mean  | SD    | N |
|-------------|--------------------|-------|-------|---|
| M1          | Intellectual       | 7.00  | 1.87  | 5 |
|             | Motor              | 10.75 | 8.26  | 4 |
|             | Sum                | 8.67  | 5.59  | 9 |
| M2          | Intellectual       | 5.20  | 4.08  | 5 |
|             | Motor              | 8.75  | 4.11  | 4 |
|             | Sum                | 6.78  | 4.26  | 9 |
| M3          | Intellectual       | 6.60  | 2.70  | 5 |
|             | Motor              | 10.75 | 11.35 | 4 |
|             | Sum                | 8.44  | 7.53  | 9 |
| M4          | Intellectual       | 8.00  | 3.80  | 5 |
|             | Motor              | 10.25 | 5.12  | 4 |
|             | Sum                | 9.00  | 4.30  | 9 |

*Legend:* Mean – arithmetic mean, SD – standard deviation, N – number of participants

Table 1 presents the basic descriptive indicators: arithmetic mean and standard deviation, separately for the group of participants with motor disabilities and those with intellectual disabilities.

Table 2 presents the results of the Multivariate Analysis of Variance for repeated measures (MANOVA), which was used to examine the effects of time (pretest–posttest) and group membership (individuals with motor and individuals with intellectual disabilities), as well as their interaction, on performance in the analyzed Baskin shooting accuracy test.

**Table 2**

*Multivariate Analysis of Variance Statistics*

|             | Wilks' Lambda | F     | p    | Partial Eta Squared |
|-------------|---------------|-------|------|---------------------|
| Interaction | .92           | .14   | .932 | .078                |
| Time        | .777          | 1.304 | .223 | .157                |
| Group       | /             | 0.606 | .635 | .233                |

*Legend:* F – F test statistic, p – coefficient of significance

The separate effect of the two types of disabilities was not significant ( $F(1,7) = 1.304$ ,  $p = .29$ , partial eta squared = .157), from which it can be concluded that there was no significant improvement either in the group of participants with intellectual disabilities or in the group of participants with motor disabilities.

No significant effect of the interaction between time and type of disability was found (Wilks' lambda = .92,  $p = .93$ ,  $F(3,5) = .14$ , partial eta squared = .08). Based on the guidelines proposed by Cohen (Cohen, 1988), it is determined that the impact of this intervention aimed at improving the accuracy of the group of participants with intellectual and motor disabilities is moderate.

## Discussion

Based on the results of previous studies, which documented the progress of individuals with mental and physical disabilities after the implementation of certain experimental treatments (Baran et al., 2013; Gallotta et al., 2025; Franciosi et al., 2012; Stanišić et al., 2012; Tsikraki et al., 2007; Tsimaras et al., 2009), this study aimed to examine the longitudinal effects of the training process in the inclusive game of Baskin on the accuracy of players in roles 2 and 2R. The answer to the research question of this study, i.e., how Baskin training, which emphasizes the development of motor skill accuracy, affects the shooting efficiency of players in roles 2 and 2R, was obtained through the application of Multivariate Analysis of Variance for repeated measures. The results indicate that there is no statistically significant impact of time and type of disability on the progress of the group of individuals with physical and intellectual disabilities.

Future studies could investigate the differences between participant groups regarding the influence of audience factors, or the importance of competitive outcomes, in situational conditions of Baskin matches, through various sources of stress. On the other hand, it is necessary to consider the specificities of the rule modifications themselves, which create a maximally protective environment for pivot players in terms of non-interference from other players, unlike other adapted basketball modifications. This, in some way, may also affect the different results achieved by players. The observed variability in shooting performance among players with intellectual disabilities, especially those with role 2 in the pivot position, is consistent with previous research indicating fluctuating motor accuracy in this population (Baldari et al., 2009; Franciosi et al., 2012; Gallotta et al., 2025). These studies underline the influence of individual cognitive, attentional, and motivational differences on performance in precision-demanding tasks such as shooting.

Considering the small number of participants in this study, the obtained results provide only limited data on the effects of the implemented treatment but leave room for planning innovative training programs in adapted sports. Apart from training focused on improving motor skills and shooting patterns, it may be possible to incorporate a model of instructional encouragement of players by coaches through verbal motivational messages, as seen in some studies (Baniasad et al., 2022). In addition to the motor aspect, it would be desirable to administer questionnaires on psychosocial behavior and adaptability, which were the subjects of the analyzed studies (Castagno et al., 2001; Maïano et al., 2007; Milošević et al., 2025; Ninot et al., 2000).

As for possible limitations of this research, they primarily concern the specificity of the test itself, which is not standardized. It is possible that using a different battery of tests to evaluate basketball accuracy in adapted physical exercise would yield different results. Additionally, considering that the data in this study were collected from a relatively small, non-heterogeneous sample in terms of type and degree of disability, future studies should focus on groups of participants that are more uniform in these criteria. A larger sample, formed on the principle of randomization, is also necessary to address the absence of variables that more comprehensively explain participant behavior, social and psychological characteristics, endurance, and other motor abilities as covariates, is also necessary.

## **Conclusion**

The conducted study aimed to analyze the effects of precision training within the inclusive sport of Baskin for individuals with multifaceted disabilities. After applying the statistical procedure of repeated measures MANOVA, no statistically significant differences were found in the observed four time series regarding the shooting accuracy of players positioned in pivot roles according

to Baskin categorization, nor was there any statistically significant progress within the two groups of participants—the group with intellectual disabilities and the group with motor disabilities.

The research can assist Baskin practitioners in evaluating the precision levels of their players by applying precision tests and longitudinally tracking their progress throughout the season, or modifying the training process to monitor the effectiveness of the treatments themselves. The findings of this study can contribute to the development of training models that take into account the classification of player roles in Baskin, focusing on the remaining abilities of all Baskin players, while also preventing potential ableism in the competitive context of the Baskin game, preserving the sporting core of the game. Future studies could investigate the differences between participant groups regarding the influence of audience factors, or the importance of competitive outcomes, in situational conditions of Baskin matches, through various sources of stress. On the other hand, it is necessary to consider the specificities of the rule modifications themselves, which create a maximally protective environment for pivot players in terms of non-interference from other players, unlike other adapted basketball modifications. This, in some way, may also affect the different results achieved by players. Although improvements in accuracy were expected following the implementation of the specialized training program, the results of this research highlight the complexity and challenges in working with individuals with multifaceted disabilities within a sports context. Continued research is necessary to identify adequate tools for enhancing the motor skills essential for adapted basketball.

## References

- Baldari, C., Franciosi, E., Gallotta, M. C., Emerenziani, G. P., Reis, V. M., & Guidetti, L. (2009). Using basketball test battery to monitor players with mental retardation across 2 sports seasons. *The Journal of Strength & Conditioning Research*, 23(8), 2345-2350. <https://doi.org/10.1519/JSC.0b013e3181bb7313>
- Baniasad, T., Soltan Ahmadi, T., Khajeaflaton Mofrad, S., & Shafaeian Fard, F. (2022). The Effect of Instructional and Motivational Self-Talk on Learning a Basketball Shot in Adolescents with Autism. *Journal of Humanities Insights*, 6(01), 47-51. <https://doi.org/10.22034/JHI.2022.327673.1049>
- 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. <https://doi.org/10.1016/j.ridd.2012.10.003>
- Belfiore, P., & Tafuri, G. (2023). Didactics, Pedagogy and Sport in Inclusion Processes. *International Journal of Education and Evaluation*, 9(11), 149-158.
- Cai, W., & Baek, S. S. (2022). Effects of 24-week basketball programme on body composition and functional fitness on adults with Down syndrome. *Journal of Intellectual Disability Research*, 66(12), 939-951. <https://doi.org/10.1111/jir.12951>

- Castagno, K. S. (2001). Special Olympics unified sports: Changes in male athletes during a basketball season. *Adapted Physical Activity Quarterly*, 18(2), 193-206. <https://doi.org/10.1123/apaq.18.2.193>
- Cioni, L., Ferraro, A., & Magnanini, A. (2025). The inclusive value of Baskin in schools: A quasi-experimental study on attitudes toward disability. *Italian Journal of Health Education, Sport and Inclusive Didactics*, 9(2). <https://doi.org/10.32043/gsd.v9i2.1420>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, N.J.: Lawrence Erlbaum Associates. <https://dx.doi.org/10.4324/9780203771587>
- Einarsson, I. Ó., Ólafsson, Á., Hinriksdóttir, G., Jóhannsson, E., Daly, D., & Arngrímsson, S. A. (2015). Differences in physical activity among youth with and without intellectual disability. *Medicine & Science in Sports & Exercise*, 47(2), 411-418. <https://doi.org/10.1249/MSS.0000000000000412>
- Fay, K., Breslin, G., Czyż, S.H., & Pizlo, Z. (2013). An especial skill in elite wheelchair basketball players. *Human Movement Science*, 32, 708-718. <https://doi.org/10.1016/j.humov.2012.08.005>
- Franciosi, E., Gallotta, M. C., Baldari, C., Emerenziani, G. P., & Guidetti, L. (2012). Basketball ability testing and category for players with mental retardation: 8-month training effect. *The Journal of Strength & Conditioning Research*, 26(6), 1524-1531. <https://doi.org/10.1519/JSC.0b13e318236d0a4>
- Franciosi, E., Guidetti, L., Gallotta, M. C., Emerenziani, G. P., & Baldari, C. (2010). Contributions of selected fundamental factors to basketball performance in adult players with mental retardation. *The Journal of Strength & Conditioning Research*, 24(8), 2166-2171. <https://doi.org/10.1519/JSC.0b013e3181e34754>
- Gallotta, M. C., Franciosi, E., Giorgi, M., Cossu, L., Curzi, D., Cerbara, E., Pes, G., Silvestri, F., & Baldari, C. (2025). Inclusive basketball training for players with intellectual disability. *Journal of Science and Medicine in Sport*, 28(3), 206-213. <https://doi.org/10.1016/j.jsams.2024.12.015>
- Guidetti, L., Franciosi, E., Emerenziani, G. P., Gallotta, M. C., & Baldari, C. (2009). Assessing basketball ability in players with mental retardation. *British Journal of Sports Medicine*, 43(3), 208-212. <https://doi.org/10.1136/bjsm.2006.034918>
- Hemayattalab, R., & Movahedi, A. (2010). Effects of different variations of mental and physical practice on sport skill learning in adolescents with mental retardation. *Research in developmental disabilities*, 31(1), 81-86. <https://doi.org/10.1016/j.ridd.2009.07.022>
- Kocić, M., Bojić, I., Aleksandrović, M., Ignjatović, A., & Radovanović, D. (2017). Physical activity in adolescent with mental retardation: Is adapted basketball training adequate stimulus to improve cardiorespiratory fitness and sport skills performance?. *Acta facultatis medicae Naissensis*, 34(2), 159-168. <https://dx.doi.org/10.1515/afmnai-2017-0018>
- Magnanini, A., Moliterni, P., Cioni, L., & Ferraro, A. (2018). Integrated football: An educative proposal from sport to inclusion. *New Trends and Issues Proceedings on Humanities and Social Sciences [Online]*, 5(1), 182-189. <https://doi.org/10.18844/prosoc.v5i1.3413>
- Mañano, C., Ninot, G., Morin, A. J., & Bilard, J. (2007). Effects of sport participation on the basketball skills and physical self of adolescents with conduct disorders. *Adapted Physical Activity Quarterly*, 24(2), 178-196. <https://doi.org/10.1123/apaq.24.2.178>
- Matković, A., Rupčić, T., Ferenc, T., Božić, I., Matković, B., & Janković, S. (2024). Effect of basketball training on motoric abilities in individuals with intellectual disabilities.

- Hrvatski športskomedicinski vjesnik*, 39(2), 103-108. <https://doi.org/10.69589/hsv.39.2.5>
- Milošević, Ž. (2024). Technico-tactical elements of the game as a factor of success in the 2nd European Baskin Cup. *Exercise and Quality of Life*, 16(2), 49-56. <https://doi.org/10.31382/eqol.241207>
- Milošević, Ž. N. (2023). *Baskin as a new possibility in adaptive physical exercise*. *Fizička kultura*, 77(2), 125-133. <https://doi.org/10.5937/fk77-51778>
- Milošević, Ž., Šćepanović, T., Karasek, B., & Jorgić, B. (2025). The most common ways of scoring points at the 2nd European Baskin Cup. *Sport Mont*, 23(1), 93-97. <https://doi.org/10.26773/smj.250214>
- Milošević, Ž., Šćepanović, T., Milovanović, I., Jorgić, B., Matić, R., & Popović, S. (2025). Differences in physical self-concept after the applied experimental treatment of the inclusive Baskin game in people with disabilities. *Health Problems of Civilization (online)*. <https://doi.org/10.5114/hpc.2025.150183>
- Ninot, G., Bilard, J., Delignières, D., & Sokolowski, M. (2000). Effects of integrated sport participation on perceived competence for adolescents with mental retardation. *Adapted Physical Activity Quarterly*, 17(2), 208-221. <https://doi.org/10.1123/apaq.17.2.208>
- Shapiro, D. R., & Dummer, G. M. (1998). Perceived and actual basketball competence of adolescent males with mild mental retardation. *Adapted Physical Activity Quarterly*, 15(2), 179-190. <https://doi.org/10.1123/apaq.15.2.179>
- Shigematsu, S., Ogawa, M., Neya, M., Fujiwara, M., & Nakata, H. (2022). The relationship between free-throw accuracy and performance variables in male wheelchair basketball players. *Journal of Human Sport and Exercise*, 17(4), 919-930. <https://doi.org/10.14198/jhse.2022.174.18>
- Sisti, D., Amatori, S., Bensì, R., Vandoni, M., Calavalle, A. R., Gervasi, M., Lauciello, R., Montomoli, C., & Rocchi, M. B. (2021). Baskin—a new basketball-based sport for reverse-integration of athletes with disabilities: an analysis of the relative importance of player roles. *Sport in Society*, 24(2), 277-285. <https://doi.org/10.1080/17430437.2019.1640212>
- Stanišić, Z., Berić, D., Bojić, I., Nurkić, M., & Kocić, M. (2012). The effects of specially adapted basketball training program in adolescents with mental retardation: a pilot study. *Serbian Journal of Sports Sciences*, 6(3), 89-93. <https://doi.org/10.5937/sjecr13-2328>
- Sundahl, L., Zetterberg, M., Wester, A., Rehn, B., & Blomqvist, S. (2016). Physical activity levels among adolescent and young adult women and men with and without intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, 29(1), 93-98. <https://doi.org/10.1111/jar.12170>
- Tsikriki, G., Batsiou, S., Douda, E., & Antoniou, P. (2007). The effects of a pilot exercise program of basketball basic skills on individuals with moderate mental retardation. *Inquiries in Sport & Physical Education*, 5(3), 352-362. <https://doi.org/10.26253/heal.uth.ojs.ispe.2007.1213>
- Tsimaras, V. K., Samara, C. A., Kotzamanidou, M. C., Bassa, E. I., Fotiadou, E. G., & Kotzamanidis, C. M. (2009). The effect of basketball training on the muscle strength of adults with mental retardation. *The Journal of Strength & Conditioning Research*, 23(9), 2638-2644. <https://doi.org/10.1519/JSC.0b013e3181c0d9ab>
- Yanardag, M., Arian, H., Yilmaz, I., & Konukman, F. (2013). Physical fitness levels of young adults with and without intellectual disability. *Kinesiology*, 45(2), 233-240.

## Efekti treninga preciznosti kod osoba sa različitim invaliditetom u inkluzivnoj igri Baskin

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*Uvod:* Brojne studije ukazale su na pozitivne efekte prilagođenih sportskih programa na unapređenje sportskih veština osoba sa višestrukim oblicima invaliditeta. *Cilj:* Cilj ovog istraživanja bio je da se ispita obim promena tokom četiri vremenske serije u aspektu preciznosti u inkluzivnom sportu Baskin za osobe sa fizičkim i intelektualnim invaliditetom. *Metod:* Devet učesnika, četiri sa motoričkim i pet sa intelektualnim invaliditetom, prosečnog uzrasta ( $28.92 \pm 11.02$ ), učestvovalo je u ovoj studiji. Test procene preciznosti sproveden je sa tri pozicije sa kojih igrači u ulozi 2 mogu da šutiraju u situacionoj Baskinovoj igri. *Rezultati:* Nije pronađen značajan efekat interakcije između vremena i vrste invaliditeta (Vilksova  $\lambda = .92$ ,  $p = .93$ ,  $F(3.5) = .14$ , parcijalna eta kvadrat = .08). Odvojeni efekat dve vrste invaliditeta nije bio značajan ( $F(1.7) = 1.304$ ,  $p = .29$ , parcijalna eta kvadrat = .157), iz čega se može zaključiti da nije došlo do značajnog poboljšanja ni u grupi učesnika sa intelektualnim invaliditetom, niti u grupi učesnika sa motoričkim invaliditetom. *Zaključak:* Rezultati su pokazali da nije bilo statistički značajnih razlika između četiri merenja, niti je bilo statistički značajnih poboljšanja između grupa učesnika.

*Ključne reči:* adaptirani sportovi, intelektualni invaliditet, fizički invaliditet

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