

## TEACHING FEINTS TO HANDBALL BEGINNERS - PRELIMINARY RESULTS

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### ABSTRACT

*The aim of this preliminary research was the evaluation of a two-month program for improvement of the single forward feint to the left with passage to the right, and single forward feint to the right with passage to the left by “shifting” the opponent’s hand. Sixteen young male handball players aged  $9.64 \pm 0.87$  years participated in this study. The program was implemented over two months, during which 18 training sessions (35%) were conducted for the improvement of feint skills, from 52 training sessions overall. An initial video recording was made at the beginning of the period, and a final one at the end. Videos were analyzed by three experts, using a grading list and detailed grading criteria. The basic parameters of descriptive statistics were determined for both variables. The metric characteristics of the expert estimation contribution were analyzed through measures of reliability (Cronbach’s  $\alpha$ ) and homogeneity (average item inter-correlation). The non-parametric (Wilcoxon  $t$ -test) method was used to analyze changes in the levels of feint performance at different times. The results indicate satisfactory reliability and homogeneity of the tests ( $\alpha_1=0.90$ ;  $r_1=0.80$ ;  $\alpha_2=0.86$ ;  $r_2=0.87$ ). Through insight into the results, a significant difference was spotted between the initial and final states of both motor skills acquisitions ( $T_1 = 114.5$ ,  $p=0.01$ ;  $T_2=7.00$ ;  $p=0.01$ ). The limiting factors of the study may be the sample size, as well as the absence of a control group and of a validated evaluation of the instrument.*

**Keywords:** motor skills, teaching methods, single feint, work program

## UČENJE »FINT« PRI ROKOMETAŠIH ZAČETNIKI – PRELIMINARNI REZULTATI

### IZVLEČEK

*Cilj te začetne raziskave je bila ocena dvomesečnega programa za izboljšanje izvajanja enojnega lažnega koraka v levo s prehodom po desni ter enojnega lažnega koraka v desno s prehodom po levi in »odmikom« nasprotnikove roke. V raziskavi je sodelovalo šestnajst mladih rokometashev v starosti  $9.64 \pm 0.87$  let. Program je trajal dva meseca, v tem času je bilo 18 od skupno 52 treningov (35 %) posvečenih izboljšanju izvajanja lažnih akcij oziroma t. i. fintiranja. Ob začetku izvajanja programa je bil posnet video, prav tako tudi ob koncu programa. Videoposnetka so analizirali trije strokovnjaki, ki so si pri ocenjevanju pomagali s podrobnim ocenjevalnim seznamom in kriteriji. Za obe spremenljivki smo določili osnovne parametre opisne statistike. Metrične vrednosti strokovnih ocen smo analizirali z vidika zanesljivosti (Cronbachov alfa) in skladnosti (povprečne interkorelacije med postavkami). Spremembe na ravni izvajanja lažnih akcij na različnih časovnih točkah smo analizirali z neparametrično metodo (Wilcoxonov test z rangi). Rezultati so pokazali zadovoljivo zanesljivost in skladnost preizkusov ( $\alpha_1=0.90$ ;  $r_1=0.80$ ;  $\alpha_2=0.86$ ;  $r_2=0.87$ ). Pregled rezultatov je pokazal pomembno razliko med začetnim in končnim stanjem pri usvajanju obeh motoričnih sposobnosti ( $T_1 = 114.5$ ,  $p = 0.01$ ;  $T_2 = 7.00$ ;  $p = 0.01$ ). Omejitve raziskave so velikost vzorca ter odsotnost kontrolne skupine in validacije instrumenta.*

**Ključne besede:** motorične spretnosti, učne metode, enojni lažni korak, delovni program

## INTRODUCTION

Since knowledge and skills can be taught and acquired in different ways, it is the task of a trainer, coach, or teacher to find the best one to achieve the defined goals. The modern handball game shows progress in this respect, as obligatory improvement of coaching competencies is being introduced in all aspects of teaching.

Despite the diversity of children's training programs, the role and the importance of playing the game is still a top priority in children's handball training sessions (Foretić, Burger, Rogulj, 2011). A game-focused approach could be an effective method when teaching team sports in which tactical solutions and decision-making periods on the court or in the field are rather short, as well as the periods of scoring in offensive and defensive games (Chatzipanteli, Digelidis, Karatzoglidis, & Dean, 2016; Hrynchenko, Tykhonova, Karpunets, & Chupryna, 2021).

Younger schoolchildren (6–10 years) take their first steps in organized handball training playing mini handball in handball schools. Mini handball is adapted for younger schoolchildren in many aspects: reduced playing field, soft small ball, a lower number of players on the team (4 plus the goalkeeper), shorter duration, the way of playing through individual tactical action in offences and defense, etc... For children included in this type of training activity, it is very important that their needs for security, belonging, and affection are met, as addressed by Milanović (2013), as well as their self-respect and self-actualization, which might be even more important than gaining motor knowledge and developing skills. The coach has a key role in creating such an environment. Often, a problem occurs because trainers treat children as if they are older than their actual age. Numerous authors have explained that the development of children has its principles and dynamics related to the specific developmental stages, which then, in turn, determine the pursued objectives (Balyi, Way & Higgs, 2013; Côté & Vierimaa, 2014; Lloyd et al., 2015). In this sense, creating and implementing a syllabus that is appropriate for a child's age and will, at the same time, foster high quality sports development, is a challenging task for handball coaches and teachers of beginners.

A shift from mini handball to team handball is not a simple process since the activity in question is complex. The game in the attack according to the playing positions in handball differs significantly from the free play throughout the field in mini handball. After playing defense individually in mini handball, it is necessary to learn how to function in an organized defending system. Focus on ball handling is more prominent than focusing on game stops due to body contact ('a foul'). To be more successful in the long run when playing defense, young handball players should begin learning new moving structures such as defense configurations 3:3 (zone formation) or 3+3 (combined formation) (Kanjugović, Ohnjec, Žnidarec Čučković, 2013). Malić and Dvoršek (2011) suggest that young players at that age should develop some basic elements of handball technique such as catching and passing, different shooting methods, as well as landing and using feints, whereas very detailed specialization is not yet desirable. The emphasis is on learning mostly technical, rather than tactical elements, so learning

feints and acquiring a habit of moving without the ball into an open area is extremely important to be able to deal with the situations in the game.

To teach methods of physical education and sport (PES) in classes, a teacher or a coach traditionally demonstrates certain elements and instructs the students on how to execute movements. This methodology has the theoretical basis in the cognitive approach, where the mind is the center of learning an activity (Raiola, 2017). The behaviorist and cognitivist theories suggest an exact and single solution model of a motor problem, and therefore are prescriptive in their nature (Raiola, 2017). Papić and Papić. (2014) mention the importance of adapting teaching methods to the children's needs and abilities by creating situations that enable a child to learn independently, without imitating a coach, and consequently without the need to be constantly corrected.

The aim of this study was the evaluation of a two-month program for improvement of a single forward feint to the left with passage to the right, and of a single forward feint to the right with passage to the left by "shifting" the opponent's hand.

## METHODS

### Sample

The sample consisted of 16 young handball players aged 8 to 11. All study participants were in their first year of actively competing in the national league for boys of their age. The parents of all the participants signed the program participation approval forms. The study used two variables for the evaluation of specific motoric skills:

1. a single forward feint to the left with passage to the right (FL), and
2. a single forward feint to the right with passage to the left by "shifting" the opponent's hand (FR).

### Training program

The program was part of a regular training process (a total of 52 trainings) for two months. 18 sessions (35%) were focused on teaching feinting and structured exercises focused on repeating the new pattern of movement in the set conditions, then in situational exercises and during games of handball. The features of the feint teaching program included (Henigman & Ohnjec, 2021):

1. the learning of the two technical elements in a 50:50 ratio,
2. the use of the *kidGRID* sports equipment, a version of agility ladder (Papić & Papić, 2014) – a set for an independent learning of a movement,
3. repetition of a movement pattern in a real situation – after performing a moving structure by running through the *kidGRID* agility ladder; and after passing a passive hurdle immediately afterwards, a player was asked to implement this new

motor skill in the actual court situation by confronting an opponent in an attempt to score.

4. speed of performance – by adding a defending player who chased the attacker, the exercise was performed at almost maximum speed.
5. development of creativity – when confronting the opponent, the player had to perform a feint. However, this did not have to be the exact one performed on the agility grid since the player had to adapt to the real situation on the court.

It is important to add that after the application of the exercise, in every training session a game of handball was played.

An initial video recording was made at the beginning of the program, and a final one at the end. Four videos were analyzed by three experts using a grading list and detailed grading criteria. (grade 1 - inability to perform a feint, the player cannot catch the passed ball; grade 2 - the player breaks game rules when performing a feint – by walking, double dribbling or fouling the defending player; grade 3 - performing a feint in accordance with the game rules but with no accentuated change in movement direction; grade 4 – technically well but too slowly performed feint; grade 5 – technically well and swiftly enough performed feint). The criteria for the evaluation by the experts were formed according to a study conducted on students (Gruić, 2011) and adapted to the population of beginning handball players. The experts were coaches who had completed professional and university studies in kinesiology, licensed handball coaches, and coaches who have experience working with younger age athletes.

### Statistical analysis

The basic parameters of the descriptive statistics were determined for both variables. The metric characteristics of the expert estimation contribution were analyzed by using measures of reliability (Cronbach's  $\alpha$ ) and homogeneity (average item inter-correlation). The non-parametric Wilcoxon t test was used to analyze changes in the levels of feint performance at different times.

### RESULTS

Table 1 shows the basic metric characteristics of the expert estimation contribution when applying measures of reliability (Cronbach's  $\alpha$ ) and homogeneity (average item inter-correlation).

Table 1. Measures of internal agreement of expert evaluation criteria

		I	F	$\alpha$	$r$
FL	Cronbach's $\alpha$	0.93	0.87	<b>0.90</b>	
	Average item inter-correlation r	0.85	0.75		<b>0.80</b>
FR	Cronbach's $\alpha$	0.88	0.84	<b>0.86</b>	
	Average item inter-correlation r	0.99	0.75		<b>0.87</b>

The results indicate a satisfactory reliability and homogeneity of the tests ( $\alpha_1=0.90$ ;  $r_1=0.80$ ;  $\alpha_2 =0.86$ ;  $r_2=0.87$ ). A somewhat lower reliability of the single forward feint to the right with passage to the left by “shifting” the opponent’s hand tests (0.86) could be accounted for by a higher complexity of the feint, which subsequently caused more disagreement among the assessors.

The average values and standard deviations of the skill levels graph (Figure 1) demonstrate a total average improvement of both motor structures. An average grade of the basic feint rose from 2.88 to 3.52, and from 1.84 to 2 in the case of the more complex structure.

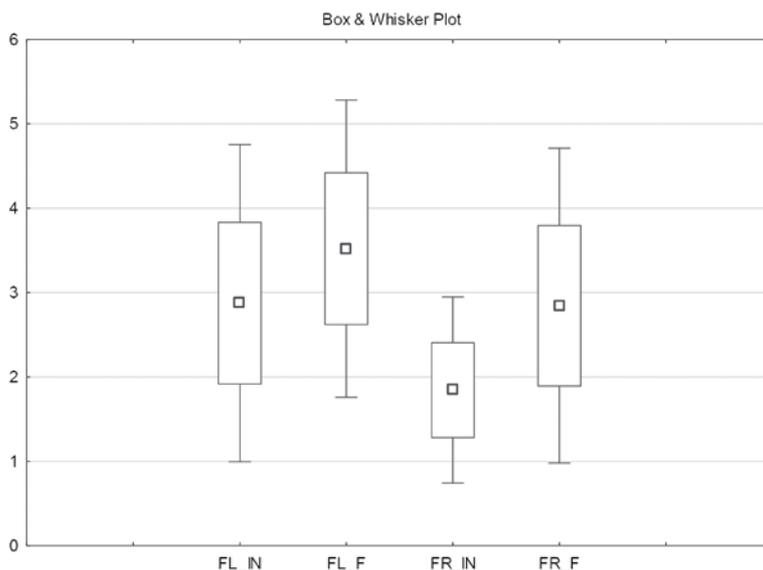


Figure 1. Average values and standard deviations of the level of knowledge in the initial and final states.

The table of Wilcoxon t-test results (Table 2) indicates a significant difference between the initial and final states of learning for both motor skills.

Table 2. Wilcoxon t-test

Pair of Variables	T	Z	p-value
FL_IN & FL_F	114.50	3.28	0.00
FR_IN & FR_F	7.00	4.46	0.00

\* FL\_IN - a single forward feint to the left with passage to the right - initial measurement

FL\_F - a single forward feint to the left with passage to the right - final measurement

FR\_IN - a single forward feint to the right with passage to the left by "shifting" the opponent's hand - initial measurement

FR\_F - a single forward feint to the right with passage to the left by "shifting" the opponent's hand - final measurement

## DISCUSSION

This preliminary study presents the effects of a two-month training program of teaching the two types of feints to handball beginners. Initial grading values, for the simple feint to the left with a passage to the right – basic feint (2.88), are slightly higher than for the feint to the right (1.84). An explanation for this could be in the "natural" way of performing the basic feint and its more frequent spontaneous application in the training process. The maximum grade in initial testing of the basic feint was 5, and minimum 1. After the training program was applied, the number of maximum grades increased, and the lowest grade was 2. Lower grades in the single forward feint to the right with passage to the left by "shifting" the opponent's hand assessment tests at both time points might be due to the more complex structure of this feint in comparison with the basic one. The level of coordination may be responsible for the success of this feint. In team-handball, optimal movement coordination is a main determinant of success in throwing performance (proximal-to-distal sequencing, upper body rotation, adaptations to different situations), jumping performance (block, jump throw, with one leg or both legs, with or without run-up) and specific agility (in offense and defense, short accelerations, changes in direction) (Wagner, Finkenzeller, Würth & Von Duvillard, 2014). When comparing the initial and final assessment results, the average grade for the simple feint with the passage to the right - basic feint, increased by 0.64 (from 2.88 to 3.52), while the difference between the average grade in the initial (1.84) and final tests (2.84) of the second feint passage was 1.00. Because of the young age and inexperience, the subjects made many technical mistakes that included dropping the ball, untimely run-up, or taking too many steps when performing the elements. In the initial measurement, the rate of performance with technical errors was 33% for the first

feint and 91% for the second. In the final measurement, the rate for performance with technical errors observed dropped to 17% for the first feint and 38% for the second. Although this resulted in relatively lower average grades, the program implemented on the given sample, nevertheless, confirmed that the ball feinting motor skills can be significantly improved in two months. The increase of the average grade in both skills (FL 2.88–3.52, FR 1.84–2.84), as well as statistically significant differences established between the initial and final performance of both body feints demonstrate the progress in the subjects' performance of the feints after the implementation of the training program. Fasold, Houseman, Noel, and Klatt (2020) presented similar results when researching specific handball skill acquisition using different instruction methods (step-by-step and analogy instructions). They concluded that both coaching strategies improved the young athletes' performances of the task at which they were relatively unexperienced (i.e., body feint).

## CONCLUSION

Based on the results of this preliminary study, the conclusion is that the subjects improved their knowledge and skills after the applied training program. The limiting factors of the study might be the small sample size used, the absence of a control group, and the lack of a validated evaluation of the instrument. Due to the complexity of the assessment of technical elements in handball, it is not easy to include the whole of the application possibilities of these skills in situational conditions. Therefore, one of the recommendations for some future research is to find a way to establish a statistically relevant connection between the program for acquiring or improving a certain element, and its situational application in the game. The results of this preliminary study might also be encouraging, and inspire the coaches of young athletes, to both create new programs as well as to evaluate their efficiency.

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