

WERKSTATTBERICHT > PRACTICE REPORT

QATCH - A new team sport activity has emerged

Csaba Ökrös, Dóra König-Görögh, Axel Binnenbruck

Keywords: Qatch, sports game, handball, table tennis, trend game

Schlüsselwörter: Qatch, Sportspiel, Handball, Tischtennis, Trendsport

ABSTRACT

The article deals with a new game with hand and ball called "QATCH", which emerged from the Teqsports family. QATCH is suitable both as an alternative form of training for handball but also as its own "hybrid back-throw game" in different contexts such as clubs, schools, universities or in public spaces. The article first describes the historical origins and development of the game. It then gives an insight into both the rules of the game and the game's tactical process. Furthermore, the potentials for and the intersections with the sport of handball are clarified and the required performance parameters in the areas of technique, tactics, physical and mental factors are addressed. The article concludes with a perspective on the necessary establishment and implementation processes that are considered necessary for such a new game idea in order to exploit its potential for the various social groups.

ZUSAMMENFASSUNG

Der Artikel beschäftigt sich mit einer neuen Ballsportart namens „QATCH“, welche aus der Teqsport-Familie hervorgegangen ist. QATCH eignet sich sowohl als alternative Trainingsform für den Handballsport aber auch als eigenes „hybrides Rück-Wurfspiel“ in unterschiedlichen Kontexten wie Verein, Schule, Hochschule oder im öffentlichen Raum. In dem Artikel werden zunächst die geschichtliche Herkunft und die Entstehung des Spiels beschrieben. Im Anschluss gibt es einen Einblick sowohl in die Spielregeln als auch in den spieltaktischen Ablauf. Es werden die Potentiale für und die Schnittmengen mit dem Handballsport verdeutlicht und die benötigten Leistungsparameter in den Bereichen Technik, Taktik, Kondition und mentale Faktoren thematisiert. Abgeschlossen wird der Artikel mit einem Blick auf die notwendigen Etablierungs- und Implementationsprozesse, die für eine solche neue Spielidee als notwendig erachtet werden, um das Potenzial für die unterschiedlichen gesellschaftlichen Gruppen auszuschöpfen.

1. INTRODUCTION

Nowadays, we take it for granted that new sports are emerging all around us, all over the world. The primary message of this process is that humans constantly work on creating something new, something that they enjoy in both a performing and spectating role. Among the wide range of sports, sports games, or team sports as they are more commonly known, tend to be high on people's popularity lists. Traditional sports such as football, handball, basketball, ice hockey or volleyball are becoming part of people's everyday lives, across national borders. From physical education at school to the competitive form of certain sports, or from watching them on television to personally cheering on the matches in stadiums, we encounter, practice, and enjoy sports in numerous different ways, whether it is for our own interests or as a means of social integration. It has been proven time and again that human imagination knows no boundaries. Sometimes it is enough to change the medium to turn a traditional sport into a new sport. There are many examples of this, but one of the most significant is the change from handball to beach handball. The game of handball was brought "back" from the gym to outdoors, where the ground was changed from parquet to sand, and since then beach handball, and previously beach volleyball, has conquered the world. But why not combine several sports, adapting the rules to a new "hybrid" game? This study presents a sporting activity with an educational purpose, which has been designed using a lot of creative ideas. It is a new game, which also contains traditional elements that make it easy to identify the sports it originates from: handball and table tennis. In the development of this game, special use was made of experiences and aspects of the game



Fig. 1: Teqball (Teq sports)

of handball. This sporting activity is QATCH, which derives its name from an acronym with the components faithfully reflecting the mission of the sport: **Q**uality **A**lternative **T**raining **C**oncept for **H**andball.

2. THE HISTORY OF TEQSPORTS

An introduction to QATCH should start with the development of teqsports. In Hungary, more and more schoolyards and sports clubs have so-called Teq tables, which look like vaulted table tennis tables. The most famous and widespread use of the table is through teqball and para-teqball, in which the ball is played according to soccer type rules. However, four other sports and three other para-sports can also be played on this specially shaped table. All these sports are grouped under the term "Teqsports", and although they can all be played on the Teq table, their specific rules are very different. Another common feature is that in

the development of each of these five sporting activities, the traditional ball games they originate from can be clearly identified. The Teq table as well as the related sporting activities are Hungarian sports innovations, which were created by Viktor Huszár, György Gattyán and Gábor Borsányi. The development of the Teq table can be traced back to foot-tennis, which the inventors often played on a table tennis table in their free time. Due to the ball bouncing off the horizontal surface in an unfavorable way, the need to create a new, ideal table materialized. Of course, this required serious engineering and design work, as the table top had to have an appropriate inclination angle and curve so that continuous play could be realized. It had to be shaped for many years, until finally the production of the first prototype began in 2012. In recent years, several different types of Teq-table have been created, which have been rewarded with various domestic and international awards.

Of all the sporting activities that can be played on it, teqball is the best known, its popularity far exceeding all other sporting activities within the "teq family" (Figure 1).

It is well known that athletes are generally less skillful with their feet than with their hands, so you might think that a serious level of training is required to play teqball successfully. Surprisingly, however, experience has shown that anyone who can juggle a ball with both feet for a few seconds can play teqball at a basic level. Naturally, for those who aspire to a higher level, this preparation will be insufficient. The other teqsports have also been making slow and steady progress, but their full development is still to come. Teqvoly (Figure 2) incorporates the movements used in volleyball, while teqpong draws on the technical repertoire of table tennis (Figure 3) and teqis draws on several other racquet sports, notably tennis (Figure 4).



Fig. 2: Teqvoly (Teq sports)



Fig. 3: Teqis (Teq sports)



Fig. 4: Teqis (Teq sports)

What the other two sports have in common is that players use a racket in addition to a ball and a table. Apart from that, they have quite a lot in common with other teqsports rule systems. The fifth member of teqsports is QATCH (Figure 5), which will be the main focus of the chapters below.



Fig. 5: QATCH (Teq sports)



Fig. 6: Hungarian trio of Tamás Zöldy, László Széles and Gábor Pálos (Teq sports)

In each teqsport, different levels of competitions are organised both in Hungary and abroad, from small challenger cups to world championships. The first QATCH world championship was held in Hungary in 2020, where the Hungarian trio of Tamás Zöldy, László Széles and Gábor Pálos (Figure 6) won the gold medal in the final (Teqsports, 2020b).

3. GENERAL CHARACTERISTICS OF QATCH

QATCH is in many ways a very special member of teqsports. Its name itself is different from the other sporting activities played on the Teq table, as it does not have the term "teq" in its name. It also differs significantly from teqball, as is indisputable due to the difference in the use of the feet and the hands. Although not in its written form, there is a similarity in pronunciation and meaning with the English term "catch", as QATCH also refers to the ways of catching and possessing the ball used in handball. Of course, the basic idea of the game originates from net games, but it is reasonable to draw a parallel between QATCH and handball, because the technical elements, tactical approaches and rule system of handball provided the basis for the development of QATCH. If these characteristics are not enough proof of the uniqueness of QATCH for everyone, the fact that QATCH alone features three players against three opponents on the playing field at the same time is certainly a decisive factor. Furthermore, the two teams play in a mixed formation of attacking and defensive roles on the field, which means that players on both sides are playing in a 2-on-1 situation (Figure 7).

No direct physical contact is allowed between the players, i.e. you are not allowed to touch your opponent, let alone fouling them. This rule makes QATCH - supplemented, of course, by other safety rules - much safer than handball. In handball, many injuries are caused by kicks and punches (Vila et al., 2022), which is unimaginable in QATCH. Notwithstanding the fact that the players cannot touch each other, the defender's presence and defensive activity constantly make the attackers think and solve problems. This makes it even more difficult to solve the situations given during the game. This gives the attackers an artificially designed, permanent superiority in numbers, which is advantageous for them, but the rules also give the defenders a good chance to score. In handball, a shot on goal is aimed at a vertical 2x3m surface, whereas in QATCH the aim is to hit a smaller (1,5x1,5 m over 17cm net) and almost horizontal surface. The main aim of the game is for teams to score as many points as possible against their opponents and reach 12 points as quickly as possible. There are different ways to score, since whether you are in an atta-



Fig. 7: 2-on-1 Situation (Teq sports)

cking or defensive role, the option is open in both major tactical areas. One game is played until 12 winning points, and a set is won by winning two games. Depending on the competition format, a team's final victory requires winning one or more sets. The game is supervised by two referees, positioned at the centerline on either side of the Teq table. Their task is to clarify the awarding of points by using conventional hand signals and verbal explanations (QATCH TV, o.J.).

4. BASIC RULES OF QATCH

4.1 Court dimensions

We distinguish between playing field, Teq table and lines. The playing field is a 15x14 up until 20x20 meter area, and the Teq table is located in the middle, with parameters shown in Figure 8. The peculiarity of the Teq table is the curvature of the playing surface, which is 76 cm at the highest point in the middle without the 14 cm high net and only 56.5 cm at the lowest point on both sides.

One of the novel and diverse features of QATCH is that, although there is a Plexiglas "net" separating the attacking/defending table sides, there are attackers and defenders on both sides of the playing field. A special line system surrounds the table. The baselines, parallel to the shorter sides of the table, are drawn at a distance of 2.5 metres from and at the same length as the table. The centreline runs under the table, in line with the "net", perpendicular to the longer sides of the table. The sidelines are marked as follows: a line is drawn from a point on the centreline 3.5 metres from the edge of the table to the nearest

end of one of the baselines, which is marked on both sides of the table and the sides (Figure 9).



Fig. 8: Teq table with parameters (Teq sports)

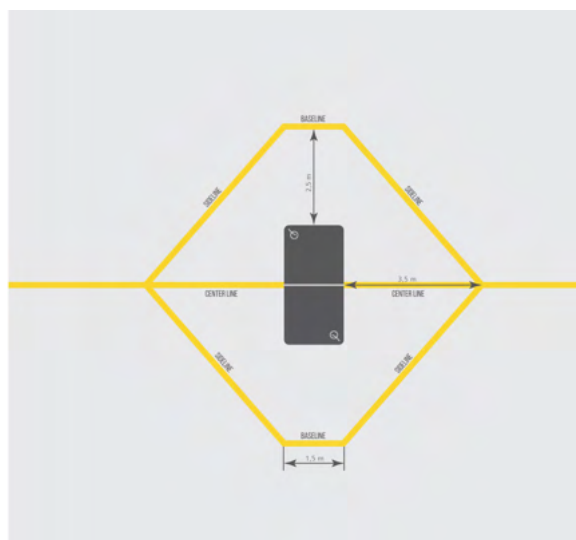


Fig. 9: QATCH court (Teq sports)

4.2 Play with the ball

In QATCH, the rules allow holding the ball for 3 seconds. During possession, the rules also allow the player holding the ball to take up to 3 steps or jump up with it. This is important in gaining momentum for returns and passes. Dribbling a ball once or more times is not allowed. The game starts with an opening throw, which must be taken from behind the baseline by the defender, with the ball thrown to the other side of the Teq table bouncing once before being touched by a teammate of the defender. The opponent's defender must remain behind the baseline until the ball is touched by one of the attackers receiving the opening throw. After the opening throw, the two attackers must make at least one pass before returning the ball. However, attackers are restricted to a maximum of three passes within one possession. So, the tactical approach on offense has to be adjusted accordingly, as the ball must be returned after the third pass. With the exception of the opening throw, the aim of all returns is for the ball to reach the other side of the Teq table in such a way that the opponents cannot catch it after the bounce, i.e. the ball should bounce twice on the table or bounce on the ground or out of the playing field after the first contact with the table. Players can use different types of returns, which are subject to strict rules. One of the most important rules when returning the ball from the ground is that both feet of the thrower must remain outside the lines during the return until the opponent catches the ball or a point is scored (Figure 10).



Fig. 10: Both feet of the thrower must remain outside the lines during the return (Teq sports)



Fig. 11: Air shot (Teq sports)

The same applies to jump shots, as the player has to jump up from behind the lines and land outside the lines, therefore the player is not allowed to jump into the area within the lines. The player may only land inside the lines after an air shot or volley shot, where the ball received from the teammate is caught in the air by the thrower jumping from behind the lines and returning before landing (Figure 11).

After landing, because of the momentum, care must be taken not to touch or cross the actual or the vertical imaginary center line or touch the table. In these cases, even if the return is successful, the point is awarded to the opponent (Teqsports, o. J.).

5. THE TACTICAL BEHAVIOR IN QATCH

As in all "ball-games", depending on which team is in possession of the ball, we can talk about offensive and defensive sides. So each player has both offensive and defensive duties, depending on which team has the ball.

The two attackers are allowed to move "freely" on their own side of the playing field, both inside and outside the line system for better positioning. They must respect the previously mentioned 3 steps and 3 seconds and are not allowed to dribble the ball or even bounce it once, but bounce pass is allowed on the floor or table, up to the maximum of 3 times, of course.

In QATCH, two clearly distinct defensive tasks may be identified, with the position of the players on the playing field determining which one they have to perform. On the side of the playing field where the defender is alone, his/her role is to distract the opponents. The blocking defender, similarly, to handball, is a serious hindrance already during preparation for an offensive action, as one of his/her important tasks is to prevent the attacking players from passing and thus to hinder the attackers in developing the best possible positioning and in building an attack. In addition to his/her defending activity, another important task is to block the opponent's shot to prevent a successful return on the other side of the Teq table (Figure 12).

The other type of defensive task is performed by his/her teammates (the attackers) on the other side, after the opponent has returned the ball and the ball has bounced on the table. However, it is advisable to anticipate the opponent's intentions from the opponent's passes and positioning taken before shooting, as this will significantly increase the chances of the receiving players successfully catching the ball after it has bounced on the table. The defender is free to move within his/her side of the playing field when the attackers are in possession of the ball. He/she may start defending



Fig. 12: Block the opponent's shot (Teq sports)

after one of the attackers has touched the ball. An important rule is that the defender must not prevent the attackers from catching the return. As mentioned above, this defensive activity is limited to blocking the passes and the shots. The defender may use his/her hands and feet in both activities, so the technical elements of QATCH include the same movements as those of a handball goalkeeper. The rule is that if the defender catches the ball or touches the ball in such a way that it bounces on the ground at least twice or lands outside the playing area, the defenders' team receives the point.

6. THE POTENTIAL OF USE OF QATCH IN HANDBALL PLAYERS' TRAINING

In QATCH, a number of movement sequences are recognizable that are also significant in the sports game of handball, both in attack and defense (Qatch TV, 2021). In QATCH, off-the-ball movements become more important in attack, as the time to hold the ball is limited and the freedom of movement with the ball is also severely restricted by the lack of dribbles. The ability to cooperate is of paramount importance, as is most evident in the positioning and thus the timing of the attack. In addition to dealing with the opponent, the ability to anticipate also inevitably helps players in "understanding" their

teammates. A comparison of attacking in handball and the game situations in QATCH easily reveals the similarities. The attacking and defending actions in QATCH are an excellent model for numerous technical and tactical elements of handball, especially in individual attacking (catching, passing, hitting-, jumping- and airshots), defending actions (blocking, intercepting passes) and in the cooperation between two players in a standard 2-on-1 situation. This is particularly salient in 6-0 defense phase of the game, also called "organised defense". Based on research, these situations taken from the game of handball represent similar external and internal stresses for QATCH players (Ökrös, 2020). These small tactical units are also widely used in traditional handball training, such as the teaching method called "small sided games" (Harrington, 2017), where a 2 vs 1 game situation is practised in a confined area on a designated section of the goal line. But from another perspective, the same applies to the work done by defenders. In QATCH, by deliberately eliminating physical contact from the game, the emphasis has been on footwork and the activity of the arms. This is to emphasise the improvement of "clean" defensive work, i.e. work that is primarily aimed at intercepting the ball. This offers several valuable contents, on the one hand, for those who play competitive handball alongside QATCH, as their defensive core attitude also improves. On the other hand, QATCH can also be played in a co-educational format or in mixed teams, as differences in stature or physical ability do not pose the risk of injury to the girls. In competitive contexts, however, mixed teams of men and women are not advisable, as boys are superior to girls in every way for the same age and handball experience.

The automated recognition and application of the rules of the game during play is of paramount importance. Understanding and the smooth implementation of the rules greatly support the execution of technical elements and the speed and quality of tactical decisions. The most definitive evidence of this is when players without handball background who have been playing QATCH for a year, perform fewer mistakes and easily beat handball players who are playing this game for the first time, but have considerably more experience in handball.

7. RECOMMENDATIONS FOR TEACHING QATCH

This section sums up the experiences that may be taken into account to make QATCH education more effective. For this purpose, the performance parameters are grouped into technical, tactical, physical and mental aspects.

7.1 Key elements of technical training

The direct shot or return from different positions (left, right or center) is the outstanding element in QATCH, as it leads to direct winning points. The power, biomechanical properties, and angle of impact of the returned balls (shots) by attackers have the most important role in scoring. As the size of the playing field is rather limited, balls that bounce off the table in a way that they leave the playing field result in a point for the attackers. Thus, both the angle of incidence and the bounce angle should be high, and the power of the shot should be close to the maximum. A higher angle of incidence can only be achieved by a jump shot, the most favourable being an air shot, as in this case the rules also allow you to approach the table on the way down. For this reason, the air shot is of great significance, because although it does not result in two points, unlike in beach handball (International Handball Federation, 2021), it allows the player to jump closer to the table, which results in a better vertical shooting angle. You can aim better and hit the ball harder from closer, and the time in the air also gives you more variation – more room to maneuver – in shooting. You can jump up from anywhere outside the line system and land outside the lines, but only on your own side, and you must not even touch the table or the centerline. If one of the attackers sets up an air shot by his/her partner, and the team still has a chance to pass the ball, the partner who jumps up in the air can still decide to land inside the line and pass the ball back to his/her partner, or even set up an air shot. Before the 2-1 attacking situation, the attackers in their catcher- or defensive role need good catching techniques of hard, high and long shots, but also of short balls, some of which have spin on them. The curvature of the table is one of the special features here and often makes it unusually difficult to correctly assess the course of the ball, which differs from that of a purely horizontal table. In the further course of the game, good passing techniques including their respective feints are needed, as well as techniques to get open without the ball in a 2-1, as described above.

The defender needs blocking techniques for direct shot defense, which can go as far as goalkeeping techniques, since they are allowed to defend the ball with all extremities. They can also use all parts of their body to play out the ball when disrupting the passing game, but they must observe the absolutely disembodied game as well as the only permitted defending in their half of the game.

7.2 Key elements of tactical training

The rules of the game are designed to require all players to play all positions. After four opening throws from each team, for a total of eight game sequences, the roles of the three players rotate. This prevents players from arbitrarily choosing between offensive and defensive roles, as all the players must share the tasks equally and show proficiency in both offensive and defensive activities. The higher the level of QATCH and the more competitive it is, the more the boundaries between the different roles become blurred, but it still remains perceptible who is more successful in setting up attacks and who is more successful in finishing or defending.

In taking shots, the laterality of the players (in other words, which hand the player uses for shooting) plays a significant role. That is exactly why, similarly to traditional handball, it is advantageous to involve left-handed players, but in this case their roles are exactly the reverse: a left-handed player is better off attacking on the left-side, and the right-hander on the right-side. The exception to this is the air shot, where it is easier to receive the ball if it comes from the side of the shooting arm. The essence of the attacking tactic is to create a clear "shooting" situation for one player, free from the defender, to allow the attacker to decide on the technique and the force used to throw the ball, and on the part of the table they wish to aim at. Since after catching the return at least one pass is always mandatory, efforts should be made at creating a favourable situation after the first or at the latest after the second pass, for an attempt at scoring with a realistic chance. The defender is often

in the way of the pass, which can be circumvented by a soft, high arching pass, which, although slow, can also be used to prepare for a finish from an air shot.

The attacking tactics is predominantly performed by maintaining position, i.e. players usually do not leave their starting positions (side). This is mainly due to the fact that the defender usually concentrates on retrieving the ball passed between two attackers. If the defender is closer to one of the attackers as in marking, and follows him everywhere, the attackers have to use wider, more distance-covering movements, which can be solved by leaving the position, possible cross moves and exchanges of positions.

The defender's work should be divided into two different tasks, as they differ in requirements if the player is a defender or if two players are receiving the return on the other side of the playing field. The defender is supposed to cut off the passing angles, preferably forcing the attackers to make a curved or bounced pass and blocking the return to the other side of the table. It is an unconcealed tactical intention for the defender to get a point to his/her team at this stage of the game by stopping the opponent's attack. On the other side, his/her teammates only have a defensive role during the return. During positioning and passing, and when taking into account the actions of their defender teammate, the attackers should calculate the expected path, angle, curvature and power of the return before and after the bounce. The attackers can anticipate these factors from the opponent's movement, body position, holding the ball, shooting motion, etc., but it can also make a difference if the attackers are familiar with the habits and deceptions of the shooting player. During defense, the quality of cooperation is most perceptible in the way the players divide the possible shooting lanes and distances between them: one player moves closer to the table for the soft, short spin shots (Figure 13), while the other player moves away from the table for the harder, stronger shots that bounce further (Figure 14).

For the time being, the rules are clear on how the roles are formed, but as the game progresses, practice will quickly provide an answer to who is strong in which activity within a team. This is the basis of the tactics at the moment, because if it is known who the better finisher is in the current attacking pair, the defending activity in the defensive tactics can be planned accordingly. Another tactical option is to force the attacker to do what is not his/her strength, i.e. when he/she is more likely to make a mistake, in different types of returns. For example, if he/she is more successful at softer, spin shots, both defenders will position themselves closer to the table, offering a hard shot.



Fig. 13: Cooperation in the defence (Teq sports)



Fig. 14: Catching harder, stronger shots that bounce further (Teq sports)

7.3 Developing physical skills

In general, anthropometric data, and in particular height and limb length, play an important role in the success of any ball game (Schwesig et al., 2017). Naturally, this alone is no guarantee of success, but if combined with dynamic muscular power in the legs and shoulders, the chances of a successful shot in QATCH are increased. The basic principle that instead of the muscles involved in the execution, it is the movement that needs to be improved is also true for the development of power in QATCH players (Uljevic et al., 2011). Just as in handball, without building up the muscular bundle surrounding the spinal column, i.e. without the adequate strength of the trunk muscles, neither jumping power nor shooting power can

be developed effectively (Kibler et al., 2006).

Flexibility and shooting power are areas of conditioning training that should be emphasised in this respect, but it should be remembered that they are worthless without sufficient attention to the improvement of the associated coordination skills.

Among the coordination skills, kinaesthesia, spatial orientation and dynamic balancing are very important, because the player has to control his/her movements in both offensive and defensive situations through continuous, multi-perspective relationships (Labib, 2014). Fast to get open movements without the ball, passing and throwing feints, dynamic shots with variable targets, throwing angles, speeds and rotation require good coordination skills. The timing and accuracy of the passes focus on the activation of the fine motor units, while the optimum generation of power transmission during returns ensures the accurate execution of the kinematic chain of throws by activating the motor units in sequence (Van den Tillaar, 2016).

7.4 The basics of mental preparation

Preparing QATCH players requires the same careful and comprehensive work as in any other sport. So far, the focus has been placed on the various elements in training athletes, and no mention has been made of the significance of mental and psychological skills. One can start from the basic premise that the stability of a competitor is like a three-legged stool: one leg is the "professional" pillar (technique, tactics), the second is the "conditioning" pillar and the third one is the "psychological" pillar. Either two can be stable, but without the third one, any "chair" will tip over and become useless (Teodor & Claudiu, 2013). Since the attainment of knowledge suitable for achieving high performance is regardless of the sport, it is safe to say that in QATCH, too, the extent to which players' decisions made in crunch time situations are close to the optimum is a significant performance determinant. This is why it is important to create a training environment that is close to the atmosphere of a competition for athletes. The essence of practice including competition for a stake is that the result of a completed task has a consequence. We can create such situations by making the exercises and games competitive, where we can reward and/or punish in a winner-loser relationship. Of course, basic personality traits and whether someone is "success-oriented" or fears failure play a crucial role in how much their competitive ability can be developed and what level of achievement they are predisposed to.

8. EPILOGUE

This article shows that QATCH has a past and a present, but there are many questions about its future. QATCH can develop into a great, innovative ball game that can be excellently integrated into the training methods of handball (as a basic sport). It may also have the potential to become high-quality and competitive as a stand alone sport. Whatever its "fate" as a trend sport is, it has already contributed to universal sporting culture, but hopefully this is just the beginning. Establishing and implementing a trending game requires activity at many levels.



Fig. 15: Game alternative with gymnastics benches (Axel Binnenbruck)

The first research results on QATCH were presented at the EHF scientific conference in Cologne, Germany in 2019 (Ökrös, 2020). Studies are underway to monitor the technical and tactical aspects of match performance, and opportunities to teach Qatch are continuously being developed. An important step in this process has been the creation of a so-called "Training Book", which contains specific QATCH exercises and is structured according to age and skill level. In addition to the thematic explanation and the corresponding illustrations, videos of the exercises were also produced (Teqsports, o.J.). The dissemination and expansion of this sporting activity must take place on multiple fronts, and for several years it has been included as a separate subject in the curricula of the bachelor's and master's degree programs launched by the Hungarian University of Sport Sciences, for the time being in a more recreational approach. Above that, students at the university write their thesis on a QATCH topic. Most of them choose match analysis, and it often happens that their results are presented at different scientific student conferences. Through international university

connections, QATCH has already been introduced at the German Sport University Cologne and the University of Münster, and two Qatch Challenger Cups were held 2020 and 2021 in Germany for the first time. (Teqsports, 2020).

In order to give QATCH more and more importance also in the education of sports teachers and in the further course in physical education at schools, solutions were developed with which QATCH can also be played and taught in schools in simplified game situations without defenders. For this purpose, alternatives for the game idea of QATCH were also developed, for which Teq tables are not necessarily needed (Binnenbruck, 2022; Figure 15 and 16).

Internal teacher training sessions with sports subject conferences were held at schools (Elsa-Brändström-Realschule, 2022).

By publicizing the game idea of QATCH, the many table tennis tables in the fresh air in schoolyards and playgrounds can be revitalized.

It is necessary in the future also to train handball coaches with QATCH contents specially. to clarify the ambition to make QATCH an independent sport. First attempts on the highest European coach level (EHF Mastercoach education) (Teqsports, 2021) have been as successful as with coaches at the lower performance level (Handballverband Westfalen).

The beach (sand) version of QATCH (Figure 17) is also becoming more popular, so Beach-QATCH is a new option for beach sport enthusiasts.

We hope that beach QATCH will become popular in countries where the climate is suitable for outdoor play most of the year.



Fig. 16: Game alternative with a ping pong table and headis net (Axel Binnenbruck)



Fig. 17: Beach Qatch (Taq sports)

Axel Binnenbruck

.....
 is a qualified sports teacher and A-license handball coach. Since 2006, he has been working as a lecturer for special tasks at the Institute of Sports Science at the University of Münster, where he is the module representative for the area of sports games.

Dr. Dóra König-Görögh

.....
 Physical education and healthy life teacher, handball coach, researcher, thesis supervisor. Assistant lecturer at the Károli Gáspár University of the Reformed Church in Hungary (Faculty of Pedagogy) since 2019. Head coach responsible for under 14 age handball teams at KSA since 2018. Main research area: movement habits of young Hungarians.

Dr. Csaba Ökrös

.....
 Physical education teacher, handball coach, EHF Master Coach, researcher, PhD supervisor, full-time lecturer at the University of Physical Education (and its subsequent legal successors) since 1996, head of the University's Department of Sports and Games and member of its Senate since 2015, director of the Sports Institute between 2021-2022, from 2022 General Deputy Rector.

Literatur

- Binnenbruck, A. (2022). Qatch: Ein neues Wurfspiel an einem speziellen Tisch. *SportPraxis*, 63(5), 50–53.
- EHF (Hrsg.). (2020). *Handball for Life: 5th EHF Scientific Conference 2019*.
- Elsa-Brändström-Realschule. (2022, Jun 21). *Zwei Qatch-Experten bei der Eliteschule des Sports in Essen*. Retrieved 12.11.2023 from <https://ebsr-essen.de/zwei-qatch-experten-bei-der-eliteschule-des-sports-in-essen>
- Handballverband Westfalen. *C-Lizenz Fortbildung: Streethandball und Qatch – Zwei alternative Handballvarianten mit Potential*. Retrieved 12.11.2023 from <https://hw.it4sport.de/filerepository/hbwf/6CE6FAB9-07DF-4CDC-926F-468AB38972DB.pdf>
- Harrington, S. (2017, Apr 26). *Handball: The importance of Small Sided Games*. Retrieved 12.11.2023 from <https://www.linkedin.com/pulse/small-sided-games-scott-harrington>
- International Handball Federation. (2021). *IX. Rules of the Game: b) Beachhandball*. Retrieved 13.11.2023 from https://www.ihf.info/sites/default/files/2021-10/09B%20-%20Rules%20of%20the%20Game_Beach%20Handball_E_0.pdf
- Kibler, W.B., Press, J., Sciascia, A. (2006). *The Role of Core Stability in Athletic Function*. *Sports Medicine*, 36(3), 189-198.
- Labib, H. (2014). The Effect of a Coordination Training Program on the Performance of Basic Handball Skills among Young Female Athletes. *Theories & Applications, the International Edition*, 4(2), 85-88.
- Ökrös, C. (2020). Load parameters associated with qatch matches using microsensor technology. In EHF (Hrsg.). *Handball for Life: 5th EHF Scientific Conference 2019* (S. 65-70).
- Qatch TV. Rules of the Game (EN). Retrieved 13.11.2023 from <https://www.youtube.com/watch?v=by9eJqkpjlo&t=26s>
- Qatch TV. (2021, Jan 19). *Győri Audi ETO KC is TEQ: Interview with Gábor Danyi, Head Coach of the Győri Audi ETO KC*. Retrieved 13.11.2023 from <https://www.youtube.com/watch?v=orqIATu5jOs>
- Schwesig, R., Hermassi, S., Fieseler, G., Irlensbruch, L., Noack, F., Delank, K., Shephard, R., & Chelly, M. (2017). Anthropometric and physical performance characteristics of professional handball players: influence of playing position and competitive level. *The Journal of Sports Medicine and Physical Fitness*, 57(11), 1471–1478.
- Teodor, C.I., Claudiu, M. (2013). The significance of psychological training in increasing the performance in handball. *Procedia - Social and Behavioral Sciences* 84, 1350 – 1355.
- Teqsports. Rules: THE MAIN RULES OF QATCH. Retrieved 13.11.2023 from <https://www.qatch.org/qatch/rules>
- Teqsports. (2021, Jul 2). *Qatch at the Handball Master Coach Seminar in Hennef*. Retrieved 13.11.2023 from <https://www.qatch.org/news/qatch-at-the-handball-master-coach-seminar-in-hennef>
- Teqsports. (2020a, Aug 25). *Münster Qatch Challenger Cup*. Retrieved 13.11.2023 from <https://www.qatch.org/news/munster-qatch-challenger-cup>
- Teqsports. (2020b, Feb 2). *I. Qatch World Championship*. Retrieved 13.11.2023 from <https://www.qatch.org/news/qatch-world-championship>
- Teqsports. *Training Book: In the Qatch Training Book there are more than 140 pages of exercises for handball players with various ages and skill levels*. Retrieved 13.11.2023 from <https://www.qatch.org/education/training-book>
- Uljevic, O., Spasic, M., Tomljanovic, M., Gabrilo, G., Foretic, N. (2011). Effects of five weeks of functional vs. traditional resistance training on anthropometric and motor performance variables. *Kinesiology*, 43(2), 145-154.
- Van den Tillaar, R. (2016). Comparison of range of motion tests with throwing kinematics in elite team handball players. *Journal of Sport Science* 34(20), 1978-82.
- Vila, H., Barreiro, A., Ayán, C., Antúnez, A., & Ferragut, C. (2022). The Most Common Handball Injuries: A Systematic Review. *International journal of environmental research and public health*, 19(17). <https://doi.org/10.3390/ijerph191710688>