

MASARYK UNIVERSITY
FACULTY OF SPORTS STUDIES



Innovative methods in boxing training

Bachelor's diploma thesis

Supervisor:
PhDr. Michal Vít, Ph.D.

Autor
Ondřej Chudoba
Department of Physical
Education and Sports
Coaching

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I declare that I have worked on this thesis independently, using only the primary and secondary sources listed in the bibliography.

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Author's signature, place, date

I express my deep gratitude and hereby thank Mr. Vít for sharing a much-needed knowledge and expert leadership throughout this thesis.

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1 THEORETICAL PART

1.1 Preface

I have chosen this very theme for my bachelor thesis since I am a third-degree boxing trainer and coach and on a daily basis do I struggle with a need to create a new innovative means to support an improvement of my trainees in a specific boxing technical and tactical aspects. As a trainer under a ČBA (Czech boxing association) I regularly take part in schooling and educational sessions organized by ČBA. Not only are we not educated often enough to actually learn anything at all. Those programs are mostly oriented mainly on news from the world of boxing and sometimes on boxing fundamentals. Never are these sessions oriented on new trends from sports training in general or on specific means to be able to work better as trainers and coaches at all. So, as it does not come as a surprise Czech boxing is in the context of world boxing – amateur or professional - mostly a joke or is not taken into an account at all. This state is caused by a lack of serious recent results from international tournaments such as European or World championship and it has been already seventeen years since Czech Republic had the representative at the Olympic tournament. (Horák, Chlaň 2002). This unenviable situation is caused, I argue, due to a lack of innovation not only in a technical and tactical ways but also in a specialized conditioning training just as well. This thesis is not going to deal with the conditioning part of the problem. This thesis is going to focus on specific technical and tactical means in training of a twenty first century boxer.

Due to this state of circumstances boxing is slowly being replaced as a traditional sport by newly come trendy combative activities such as Mixed Martial Arts, Kick-boxing and so on. As a boxing enthusiast and trainer, I feel that thanks to the knowledge am I gaining by studying on the Faculty of Sports Studies I am capable of creating a mean to shift this situation towards better tomorrows. This thesis is me attempting to implement my newly gained knowledge of basic principles, other sports training and an inspiration from other combative sports as

well into an educational material for trainers, coaches and boxing aficionados which is going to hold a potential to reverse current situation.

1.2 Objective

The objective of this thesis is to create a battery of specialized exercises, drills and practices then systematized accordingly enabling an easier orientation while implementing into a specialized boxing training unit.

1.3 Assignment

This thesis does not wish to change an overall view of boxing or come up with new ways to execute given techniques. This thesis respects and is based on all the specific techniques and only wishes to create new ways to approach teaching and learning certain technical and tactical means used in boxing as are widely and specifically described in boxing literature. The outcome of this work is an audio-visual material depicting all the drills, exercises and practices. Written part of this thesis is an instructional manual for users of this thesis in which specific description of all the particular exercises is written. The ultimate outcome of this work is going to be a table in which all the exercises are sorted out according to which skill or ability they have a potential to improve. The ideal usage is that the user is going to take this work while composing the technical and tactical part of their training unit, looks up in the table via specific requirements for a particular practice, reads up the description in a written part of this thesis to grasp the essence of chosen exercise and watches the audio-visual material in order to gain a complete understanding. Only then will they be able to use the chosen exercise correctly in the training unit appreciating its thorough asset to the training process.

1.4 Methodology

First part of this thesis is theoretical and deals with boxing as a combative sport, its history up to present day, rules and basic techniques. It also deals with its specifics and requirements both physical and technical ones. Knowledge included

in theoretical part reflects the studying of specialized boxing literature both primary and secondary sources.

Practical part consists of concrete approaches created with the intent to improve technical and tactical means in boxing. Suggested innovative approaches are based on studying primary and secondary literary sources. It reflects knowledge acquired via studying non-formal unofficial sources such as internet videos and posts of current experts in boxing using this way to share their knowledge with wide boxing public and aficionados. During the composing of suggested approaches, I have also used my knowledge gained by studying the Faculty of Sports Studies and knowledge, during my active boxing career and my coaching career as well.

While my coaching practice I struggle daily with the lack of preparatory and grounding exercises to develop particular boxing skills thus I was forced to create exercises of my own reflecting those needs via implementing my knowledge and modern day sports equipment.

Via synthesizing those approaches, information and knowledge I have created a battery of specific exercises designed to accommodate such tendencies.

1.5 Current state of knowledge

1.5.1 Definition of boxing

Boxing is a combative or fighting sport with one-on-one combat in which the two opponents try to hit each other with hands clenched into a fist wearing protective gloves into allowed places on the upper body and head for a predetermined set of time inside the predefined place called ring. Boxing match is of an intervallic character divided into rounds of the length from 1 to 3 minutes each. It is highly demanding strength-speed activity. Boxers are divided into weight and age divisions and compete only with an opponent from the same weight and age division.

Boxing match takes place in boxing ring which is four-square space on a 0,9m high raised platform. The pedestal is at least 0,46m wider than the area amongst the ropes where a match takes place. The area which is demarked by four

ropes that run around the entire square is from 4,9m to 6,1m wide. Ropes are in four given heights: 0,46m 0,76m 1,07m and 1,37m. Ropes are made of steel cords wrapped in foam padding. Out of four corners the two of them are white – the neutral ones. Third one is red, fourth one is blue. Each boxer is placed in one corner from where he or she starts a match and to which he or she returns while the one minute breaks between the rounds.

1.5.2 History of boxing

First depiction of a human activity resembling a boxing comes from Sumerian relief in Iraq dated over three hundred years BC, later depictions are found in second century BC in Mesopotamian nations such as Assyria, Babylonia and in Hittite art from Asia Minor. Then later approximately around 1500 BC first mentions of fighting with any kind of gloves can be found in Minoan Crete. From the same period of time also come statues depicting a combative activity that resembles boxing.

Later on in ancient Greece in Homers Iliad is mentioned a match that also resembles boxing between two men fighting each other with bare hands. This match was described as extremely bloody one. Boxers in this story wear only ox-hide thongs on their hands thus far the bloody contest. Earliest evidence of boxing rules comes also from ancient Greece as was the combative activity called pygme which was a part Olympic program since 776 BC which later became an official part of 23rd Olympic Games in 668 BC. These Olympic Games also produced the very first official Olympic Champion one Onomastus of Smyrna.

Romans later on developed a piece of equipment that resembled gloves called caestus as was later mentioned in Virgil's Aeneid and also a match between Dares and Entellus is described. (Virgil, 2003) Later on this specific kind of combative activity was also executed while Gladiator games. Roman soldiers also liked to box one another as training for hand-to-hand combat. Slaves were also trained to fist fight and were taught so in order to fight one another for the entertainment on their masters. Slaves used to fight in a circle marked on the ground – thus the ring later on.

With the rise of Christianity and the imminent decline of Roman Empire boxing in its form ceased to exist for many centuries. Another mention of boxing-like activity then later on comes only as a part of medieval seven knight's virtues. Throughout the upcoming centuries boxing was surviving as a fist-fighting activity executed in various provinces and cities in Italy between 12th and 17th century. In Russia for instance we are talking of an activity called Kulachnyi boy of pugilism or fist-fighting.

As a milestone in history of modern day boxing is a year 1719 in which Englishman James Figg found a School of Arms Art of Self-Defense Academy and laid basic ground rules for modern day boxing. From that moment on boxing resembled more the combative sport as it is perceived nowadays rather than a criminal activity where two people are trying to hurt one another. Another ground breaking yet tragical event occurred in 1866 where John „Jack“ Broughton and Georg Stevensonem fought for the title of world champion which led unfortunately to Stevenson's death which then caused even bigger adjustment of rules of boxing, for instance the specific lengths of rounds and pauses were employed as well as strict usage of gloves and these changes made the boxing into a sport as it is known nowadays. Behind these specific changes was John Sholto Douglas, the 9th marquess of Queensberry.

The very first official heavyweight champion of the world became in 1882 John L. Sullivan. Then the course of events took up a speed and in 1904 men amateur boxing became a part of official Olympic program. Women's boxing only became a part of Olympic program in London, 2004. In 1926 FIBA organization was found which was the first official association for amateur boxing. FIBA was replaced by AIBA in 1940 and all amateur boxing activities come under this association.

1.5.3 Amateur boxing

Amateur boxing is an Olympic sport (men since 1904, women since 2004). On the national level individual boxers compete for their club in which they are registered. They are evaluated by points for the matches they fight which are then assigned to their club. Clubs compete amongst each other in various levels of

competition. In Czech Republic we only have two levels of boxing competition. Extra – league – the highest national league, sometimes even a team from Slovak Republic is included. The lower level is regional competition. In current season Czech Republic is divided into four regions. The principal of total win is that the team who gains the most points through the course of whole competition becomes a winner. In amateur boxing boxers wear either red or blue outfit which corresponds with the color of either red or blue corner of the ring. The outfit contains of top and trunks. The equipment the boxer must have while entering the ring in order to take part in a boxing match contains of gloves, mouthpiece, bandages, suspensor, boxing shoes and except for men in Elite category also a head-piece. Gloves weigh either 10 ounces or 12 ounces. Also the manufacturer of official boxing equipment must be AIBA certified. All categories both weight and age wear 10 ounces gloves except for Elite men category from 69 kilograms up, they wear 12 ounces gloves. Bandages must be from 2,5 meter up to 4,5 meters long. Mouthpiece must be neither red nor in any other shade of red. Men must wear only groin suspensor, women must wear groin and chest suspensor.

Amateur boxers both women and men compete in only three rounds while the length of the rounds is determined by the age category. Rounds are from 1 till 3 minutes long.

In general, amateur boxing is stricter concerning the rules. Quality and the correct execution of punches is also assessed as well and as a foul is also considered un-clean punch landed for instance not with the correct part of fist just as well as a low blow or a blow on the back of the head. Technique itself is of high importance in amateur boxing. Boxer in amateur boxing is protected more by the rules than in professional boxing and it is safe to say that amateur boxing is more sports-like activity rather than a brutal combative confrontation of two.

Boxing match has one referee and three judges. Referee enforces rules inside the ring and does not influence the outcome of the match via scoring points. His primary assignment is enforcing the clean fight via overseeing the rules. Referee can stop the fight also for instance when the dominance of one boxer is so great that it could very well endanger the health of the other boxer. Referee can also consult with the ring doctor when being in the suspicion that one of the

boxers is injured or that some minor facial injury such as skin cut is turning into the jeopardy of boxer's vision or overall health. Three judges on scorecards are supposed to assess rounds and at each round chose a winner of that round who is then evaluated with 10 points. Losing boxer of that very round is evaluated with maximally 9 points or less. Number of points depends on dominance of round winning boxer. For instance 10-9 result is a slight dominance during the round, 10-8 is stronger dominance or a point deduction for knock-down or foul. 10-7 is overwhelming dominance or two knock downs. 10-6 is absolute dominance and this score should not happen during the match since the dominance is so great that it can endanger the losing boxer and in this case the referee inside the ring should stop the fight via RSC decision which means that the referee stops the contest.

1.5.4 Professional boxing

Professional boxing is basically the same sport as amateur boxing with only certain variations which are supposed to make professional boxing into a more attractive but also a more dangerous spectacle. Boxer is not protected by rules to such an extent as in amateur boxing. Cleanness of punch is not assessed here to such an extent as in amateur boxing. As long as the hand is clenched into a fist and the punch resembles what a punch is supposed to look like the rules do not pay any further attention to it.

The main difference between amateur and professional boxing is in the length of a match. In amateur boxing the match never exceeds three rounds, in professional boxing the match can last from four up to twelve rounds.

Another difference is also visible in appearance of boxers. Amateur boxers also wear the upper part of their outfit - the top - whereas professional boxers do not.

Professional boxers are allowed to tape their hands with additional padding whereas amateur boxers as was mentioned are only allowed bandages of given length.

Professional boxers do not fight for their team. They fight for their own individual rating within the respective association and the matches are promoted for them by their promoting agencies.

Professional boxing match is also judged by three scorecards judges and one ringside referee. Score of individual rounds can be wider in span due to the fact that in professional boxing is not a three knockdown rule kept so hypothetically a fighter can be knocked down nine times and the score card can that be 10-0 but as long as a referee does not stop the fight or the towel is not thrown into a ring by the losing boxer's corner the fight can go on.

Professional boxing has more than one association. Most prestigious associations are WBC, WBA, IBO, The Ring magazine, IBF.

1.5.4.1 The basic techniques of boxing

The basic technique of boxing is a punch. Punch is a blow executed by hand clenched into a fist. Frontal area of fist formed of first part splint bones of fingers from point finger to little finger and is called in boxing a punching area. (Miňovský, b.r.) With this part of hand a boxer is trying to hit the opponent on the given areas which are permitted by rules. Those areas consist of frontal part and side parts of head, vertex and back of the head are strictly against the rules. Another permitted area where a punch can be landed are on the frontal and side parts of upper body demarcate by the waist line of boxers trunks under which a punch is forbidden.

Another technique developed in boxing is means of defensive character that are supposed to protect the boxer from getting hit to the permitted areas. Generally the boxing is viewed as a sport where two opponents are mainly trying to hit one another but true boxing masters are capable of hit while not being hit in return. This fact is commonly overlooked but it is of high importance just as well as the third technical mean which is distance.

Four basic distances are generally used in boxing. Optimization of distance is permanent dynamical activity persuaded by boxers during the course of entire boxing match and is vital to all the processed going on while the match. Success

in landing punches and defending from punches is conditional for keeping a correct distance. (Hatmaker, b.r.)

1.5.4.2 Punches

A punch can be executed via four basic techniques:

- **Jab**
 - Straight punch executed by the leading hand
 - Executed on horizontal line
 - Fastest of all punches
 - Most common punch
 - Variations of this punch are also used to assess the range between opponents
 - Commonly used to start a combination consisting of more punches
 - Variation of this punch is also used as a feinting technique
 - Used mostly in long distance fighting
- **Cross**
 - Straight punch executed by rear hand
 - Executed on horizontal line
 - Second fastest punch
 - Basically the same as a jab
 - Sometimes a difference between jab and cross is not made due to a fact that the punch is executed in the same manner and looks the same; the difference is made due to a different body work – throwing a cross require more adjustments in stance and body weight shifting which leads to differentiation between jab and cross
 - Used mostly in long distance fighting and for shortening the long distance to middle
- **Hook**
 - Rotational punch executed either with lead or rear hand

- Slower than jab due to rotation of body and adjustments made in stance
- Associated slightly with a little downward trajectory
- Used for middle distance and close distance fighting
- Uppercut
 - Partly rotational punch lead with the hand from underneath upwards
 - Shortest of all punches
 - Executed with either lead or rear hand
 - Associated with a slight upward trajectory
 - Used mainly for close distance or in-fighting

1.5.4.3 Stances

There are two basic boxing stances subjected to boxer's laterality. Boxer maintains a position in which the body is slightly turned to left or right side depending on laterality. Dominant leg is the rear one. Legs are a little wider than the width of shoulders. Feet are optimally parallel one to another. Hands are bent in elbows and clenched into fists which remain elevated by the chin of a fighter with the lead hand slightly in front of the lead shoulder. Elbows are tucked to the ribcage just as well as is chin tucked to the lead shoulder. (Expert Boxing, b.r.)

- Orthodox
 - Body is turned to the right direction slightly
 - Right foot is mostly the dominant one thus is place as a rear one
 - Left foot is the lead one
- South-paw
 - Body is turned to the left direction slightly
 - Left foot is mostly the dominant one thus is place as a rear one
 - Right foot is the lead one

1.5.4.4 Defenses

Boxer can use various types of technical means to avoid punches. Usage of individual technique is dependent on many factors. For instance the chosen defensive technique does not depend only on the individuality of a boxer but also on the current state of events during the match, on the interaction between the two opponents and also on the physical state of a boxer who is aiming to use the defensive technique successfully. (Wikipedia, en., 2017)

- Footwork
 - Pulling away from the opponents punches
 - Side stepping to one side or another from punches
- Parrying or Blocking
 - Parrying the punch by the palm of a hand to deflect its course
 - Blocking the punch by either individual hand or both of them adjusted to reflect upon the coming punches
- Bobbing and Weaving
 - Moving the head laterally and beneath the coming punches
 - Bending the knees slightly to achieve the downward vertical movement
 - Resurfacing to the original height at either left or right side of the coming punch

1.5.4.5 Boxing guards and styles

Boxing guard is closely associated with the style a certain boxer uses. Some boxers are highly loyal to their one specific style of carrying around the ring and strictly stick to it. Some boxers on the other hand can adjust their style accordingly to their opponent to find an optimal way to win the boxing match comfortably.

There is not enough literature about boxing styles and in the future I recommend this topic for the closer research. Each book present us with slightly different styles and techniques but unfortunately I do not agree completely with none of them. Each presents enough argument to the suggested separation but in this case, I believe, the literary sources are dealing with very complex and wide

issue regarding this matter since as the sport progresses the styles change and adjust accordingly to the modern day boxing requirements. In an attempt to stay academically correct I will only name some of them as an example since it does not require the furthermore attention since it is not vital to this thesis.

- Pure boxer
- Boxer puncher
- Counterpuncher
- Brawler
- Slugger
- Swarmer
- Out-boxer
- Switch-hitter

(Mighty Fighter, 2012); (Wikipedia, en., 2017); (Martial Arts Sparring, b.r.)

1.5.4.6 Distances

Four different distances are differentiated in boxing. (Martial Arts Sparring, b.r.)

- Long distance
 - The distance between two opponents measured by the extend of the lead hand plus approximately 0,1m
 - Attacking technique: jab, cross and lead hook are used
 - Defensive technique: Footwork, parrying, slipping
- Middle distance
 - The distance between two opponents measured by the extend of the rear hand touching the center mass of opponent's body
 - Attacking technique: Cross, lead hook and lead uppercuts are used
 - Defensive technique: Parrying, Blocking, slipping
- Short distance
 - The distance between two opponents measured by the extend of the hooks

- Attacking technique: Hooks to the head and body and lead uppercut
- Defensive technique: Bobbing and Weaving, Blocking
- The Inside
 - The distance between two opponents where they practically touch each other with their closed guards
 - Attacking technique: Uppercuts to the head and body are mostly used
 - Defensive technique: Bobbing and Weaving, Blocking, Clinching, Grabbing

1.6 Physiology of boxing

Each sport is being affected by a number of factors. These factors are for instance somatic, physical, technical, tactical, and mental. Boxing is no exception. Boxing is a sport where the domination of acyclic movement is present. To execute such a movement a strength and a speed is required. Boxing requires perfect full body coordination. Hands are but a mean to convey the energy and a direction of a punch but the movement potential is created via rotation movement and weight shifting of the entire body. Thus the perfect intramuscular coordination is necessary just as well. Aerobic-anaerobic stamina is important requirement, too. Boxer's vision requires high level of adaptation in order to assess the dynamic changes in distance to be capable of throwing and optimally landing a punch just as well as being capable of not being hit by the opponent's punches. All these components lead to high improvements in boxer's neuromuscular coordination. (Sobolová & Zelenka, 1973)

Physical activity is of an interval character with constant changing of intensity. This intensity is submaximal. Boxers must have big amount of explosive energy potential available. Boxing also requires high level of agility and swiftness. Thus hardly ever do we see a boxer taller than 1,9m even in super heavy weight division.

Somatotype of boxers is dependent of weight class. Lighter boxers up to 60 kg are mostly ectomorphic-mesomorph. Boxers in middle weight categories

from 64 kg up to 81kg have balanced somatotype. Boxers under 81kg are mostly endo-mesomorphic. Also in general boxers are optimally longer-handed and shorter-legged. Longer hands are an asset considering the reach towards the opponent. Shorter legs provide boxer with better stability and agility (Grasgruber & Cacek, 2008).

1.7 Current literary sources and results of research

As I have come to work with multiple books about boxing I realized that as is already stated in the assignment of this thesis there are not enough books about boxing in general and practically none concerning grounding work or practices or drills to maintain and to evolve technical and tactical means at all. No book reflects nowadays usage of modern day equipment.

All the books are of the descriptive character and deal with the descriptions of all the technical means that can be used by a boxer (Ellwanger & Ellwanger, 2008) (Gradopolow, 1954) (Miřnovský, b.r.).

Some books are only focused on conditioning and on physical training of a boxer (Hatmaker, b.r.).

And some books deal with advanced techniques and advanced approaches towards the sweet science but do not deal with how to learn such means or how to teach them (Hatmaker & Werner, b.r.).

Present-day boxing trainer or coach does not have a resource of practices that evolve basic or advanced techniques and no resource whatsoever to work with on combining the technical and tactical means. AIBA has come up with rather comprehensive piece of work that aims to cover overall problems of amateur boxing but since it is only in written form it fails to bring the overall complex of modern-day educatory mean as well („aiba_coaches_manual_2011.pdf", b.r.).

2 PRACTICAL PART

This practical part of the thesis consists of individual exercises, drills organized from basic ones which can be done by total beginners to more complicated ones which require deeper grasp of boxing skill.

Each exercise includes needed equipment specification, description, level of advancement recommended along with the age of boxers and a time table of each exercise. Most exercises also include suggested alternations by which the exercise can also be variegated by.

2.1 Agility ladder exercise of boxing walk

Equipment:

Agility ladder

Number of players:

Arbitrary

Age/Level:

10 – Unlimited/beginner to highly advance

Game length:

Each exercise 3 – 5 times, length depending on the number of boxers taking part in this exercise; approximately 20 minutes

Game description:

Boxer begins in frontal boxing double hand guard stance at the beginning of the agility ladder. Left leg is inside the first square of the ladder, the right leg is outside the ladder at the same level as the left leg which is inside the ladder. Boxer begins the movement with slight shifting of the weight to the right leg staying outside the ladder to unweight the left leg inside the ladder. Then while executing the step with the left leg into the next square of the ladder boxer also shifts the weight back inside the ladder with the respective rotation of the right side of the body ending with the full body weight on the left leg which has completed the movement into the next square of the agility ladder. The right leg – the one staying still outside the ladder is rotated with almost no body weight touching the ground only with the tips of the toes. Boxer's head is facing the frontal direction and the right shoulder is tucked to the right side of the chin. Hand

is bend in the elbow with the fist also brought closer to the right side of the chin.

Alternations:

When the boxer masters the basic movement without executing the punch via participation of the entire arm drill can be modified with the punching hand either executing some punch (jab, cross, uppercut) or can also be held by the side of the body or stretched forward the entire time. More about the alternations of this exercise on the video.

Objective:

Learning basic boxing steps

Audio-video material: Video 01

2.2 Jab exercise with bosu balance half-ball

Equipment:

Bosu balance half-ball

Number of players:

Arbitrary but when the exercise is done each participant must have two bosu balance half-balls

Age/Level:

8 – Unlimited/beginner to highly advance

Game length:

4 to 8 rounds 30 - 60 seconds long

Game description:

Coach adjusts perfectly the position of bosu balance half-balls so the position is the optimal one for the boxer who is doing the exercise. Bosu half-balls should be adjusted so that when the boxer steps on them both he or she is supposed to be in his or her perfect boxing stance. Coach makes sure that the position of bosu half-balls is optimal during the entire exercise. The objective here is to shift the body weight forward and backwards at first. When the movement is established a jab is added. Jab is thrown with the according body weight shifting forward just as well as with exhalation. Coach stays in front of the boxer in the perfect direction and distance from the boxer who stays on the bosu balance half-balls to ensure the accuracy of the entire movement.

Alternations:

Jab-throwing can be interlarded with feinting moves or simple none-throwing position – boxing stance

Objective:

Learning or perfecting the body weight shifting while throwing the jab, eliminating redundant moves or bad habits while throwing a jab, balance, strengthening of deep stabilization system

Audio-video material: Video 02

2.3 Tag Game

Equipment:

None

Number of players: Arbitrary, optimally an even number or a number divisible by three

Age/Level:

4 – Unlimited/beginners to highly advance

Game length:

30 to 60 seconds then switching a partner, approximately 4-6 rounds

Game description:

Group of boxers create pairs and start round in which the objective is to tag the partners shoulder while the partner is trying to tag the shoulder of the first boxer as soon after being tagged as possible. Boxers move in their boxing guards and stances as if in boxing match. Blocking, parrying or covering is forbidden. Boxers are trying not to get tagged via slipping or footwork or ducking or weaving or dodging.

Alternations:

Gym ball can be used via playing this game. The objective here is to tag the opponent while still touching the gym ball with either hand. A place of tagging can also be changed, for instance to a knee or a thigh.

An athletic circle can be employed in this game. Both boxers can have at least one of their legs inside the circle. Another option is that one of the boxers must have at least one leg inside the circle.

Boxers can also form a group of three and play this game in threesome. The objective while plying in threesome is the same here except the tag can be either given to the player a tag has been acquired from or the third one. This alternation of the game also develops peripheral vision and creativity while dealing with different situation.

Objective:

Concentration, observation, perception, preparation for counterpunching, adjusting distance between opponents, progressive eliminating of fear from being punched/touched (physical contact)

Audio-video material: Video 03

2.4 Mirror - basic movement

Equipment:

None

Number of players:

Arbitrary

Age/Level:

8 – Unlimited/beginner to highly advance

Game length:

2 to 4 rounds 1 minute long

Game description:

Boxers stand against each other in the long distance (inside the ring or not) and one of them has the initiative the other imitates. The imitation is based on six basic boxing steps while staying in the boxing stance. Step forward, step backwards lateral step to right, lateral step to left, lead foot side step, rear foot side step. Imitation should be mirror based which means that the objective of the imitating boxers is to maintain the perfect long distance position from the opponent who initiates the steps.

Alternations:

As the boxers advance in their abilities each step can be associated with single punch and attendant feinting or slipping or bobbing or weaving movement.

Objective:

Learning basic boxing steps, maintaining the perfect long distance between opponents

Audio-video material: Video 04

2.5 Mirror - shadow boxing

Equipment:

None

Number of players:

Arbitrary, optimally an even number

Age/Level:

10 – Unlimited/intermediate to highly advance

Game length:

60 seconds then switching a role in current pair, approximately 2-4 rounds

Game description:

Two boxers stand opposite one another in approximately 1,5m distance so that they never touch while throwing punches. First one in the pair starts shadow-boxing in approximately 40-50% of maximal intensity while the other boxer is tasked to copy every single movement the first boxer makes.

Alternations:

First alternation is to task the first boxer to name the movement while he is doing it. The second alternation is to task the second boxer to name the movement he is supposed to copy from the first boxer.

Objective:

Concentration, observation, perception, adjusting a distance between opponents, learning to read the signs of coming punch in general and recreating the situations in which a specific reaction is developed

Audio-video material: Video 05

2.6 Numbers

Equipment:

Boxing gloves, bandages, focus mitts

Number of players:

Arbitrary, optimally an even number

Age/Level:

10 – Unlimited/intermediate to highly advance

Game length:

60 seconds then switching a role in current pair, approximately 2-4 rounds

Game description:

Two boxers stand opposite one another in the long-distance stance. Each punch is assigned with a specific number. Jab = 1, cross = 2, lead hook = 3, rear hook = 4, lead uppercut = 5, rear uppercut = 6. One of the boxers holds the focus mitts while the other wears gloves. First boxer says the number associated with the specific punch and holds the mitt accordingly to the specific punch while the other is supposed to hit the mitt as fast and as accurately as possible.

Alternations:

At first the punches are said individually, when the boxers are capable punches can be said in pairs or in threes or fours sequences.

Objective:

Concentration, perception, reaction, creating a new approach to memorize and exercise punch coordination

Audio-video material: Video 06

2.7 Colors

Equipment:

Boxing gloves, bandages, focus mitts

Number of players:

Arbitrary, optimally an even number

Age/Level:

10 – Unlimited/intermediate to highly advance

Game length:

60 seconds then switching a role in current pair, approximately 4-6 rounds

Game description:

Two boxers stand opposite one another in the long-distance stance. Each punch is assigned with a specific number. One of the boxers holds the focus mitts the other wears gloves. The boxer wearing gloves creates two combinations consisting of three to seven punches and assigns each combination with specific color for instance blue and red. Two boxers are moving inside the ring or in the gym around each other in the long distance. Trainer or coach then says the individual color and the boxer is supposed to do the combination associated with previously said color as fast as possible and then after doing so continuing in movement around the ring.

Alternations:

Game can consist of two to four or five colors depending on the level of advancement of boxers playing the game. Also the combinations can be more difficult or can consist of punches and various defensive means or can just simply consist of more punches.

Objective:

Concentration, perception, reaction, creating a new approach to memorize and exercise specific punching combinations

Audio-video material: Video 07

2.8 Tennis ball off the wall

Equipment:

Tennis ball

Number of players:

Arbitrary, optimally an even number so the pairs can be created

Age/Level:

8 – Unlimited/beginner to highly advance

Game length:

2 to 4 rounds 30 seconds long

Game description:

Two boxers stand in front of the wall in a parallel stance both facing the wall, one of them is closer to the wall approximately 1 meter distance, other boxer stays approximately 1,5 meter behind the first boxer. The one closer to the wall is

standing in boxing stance (optimally both) the boxer standing behind the other throws the tennis ball to the wall and the first boxer is supposed to catch the tennis ball with the movement similar to jab or cross optimally using his peripheral vision – not looking at the ball while catching it. After the time is up boxers switch places.

Alternations:

Ball can be thrown at different speeds or in various directions depending on competence of catching boxer.

Objective:

Concentration, reaction, peripheral vision

Audio-video material: Video 08

2.9 Lead hand exercise with tennis ball

Equipment:

Tennis ball

Number of players:

Arbitrary, optimally an even number so the pairs can be created

Age/Level:

8 – Unlimited/beginner to highly advance

Game length:

2 to 4 rounds 30 seconds long

Game description:

Two boxers stand in front of each other with their lead hand stretched forward palm, facing the palm of the opponent. Between their palms tennis ball is squeezed. Tennis ball is not held but only squeezed between palms. One boxer again has the initiative and is supposed to move variously around the place (the ring) making the partner adjust the distance and pressure to the tennis ball so that the tennis ball does not fall on the ground. When the time is up the role changes and the initiative has now the other boxer.

Alternations:

If the boxers are skilled or advanced enough also a boxing stance can be switched during the game from orthodox to southpaw and back variously

Objective:

Concentration, movement generalship, long distance movement optimization, lead shoulder position towards the opponent

Audio-video material: Video 09

2.10 Dribbling with tennis ball

Equipment:

Tennis balls

Number of players:

Arbitrary

Age/Level:

8 – Unlimited/beginners to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Each boxer has his own tennis ball and the objective here is to dribble it while staying in consistent boxing stance. Each dribble of the tennis ball off the ground is the equivalent of single punch thus each dribble is supposed to be associated with all the proper parts of a punch such as rotation of the body, weight shifting and exhalation.

Alternations:

Boxers can also be placed inside the ring and can be tasked to shadow dribble one other meaning that they are supposed to move in the consistent manner the way a boxer should move inside the ring while facing the opponent.

A trainer or a coach can raise his hand above his head with certain number of fingers and the dribbling boxers are supposed to say out aloud the number of raised fingers.

Boxers can also have two tennis balls. While dribbling with one the other is supposed to be tucked to the chin with the none-dribbling hand. The objective here is to stimulate the perception of none-dribbling hand and its optimal position while the other hand becomes the dribbling one.

Objective:

Concentration, coordination of eye-hand-leg movement, fine motor skills, punch coordination, peripheral vision

Audio-video material: Video 10

2.11 Counter attacks with tennis balls

Equipment:

Tennis balls

Number of players:

Arbitrary

Age/Level:

8 – Unlimited/beginners to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Each boxer has his own tennis ball and the objective here is to dribble it while staying in consistent boxing stance. Each dribble of the tennis ball off the ground is the equivalent of single punch thus each dribble is supposed to be associated with all the proper parts of a punch such as rotation of the body, weight shifting and exhalation. Then two basic counter punches with side-steps are explained. Check-hook counter punch and side cross counter punch. On the acoustical signal created arbitrary by trainer or coach boxers are supposed to react with either counter punch as fast as possible after the acoustical signal.

Alternations:

Boxers can also be placed inside the ring and can be tasked to shadow dribble one other which means that they are supposed to move in the consistent manner as a boxer should move inside the ring while facing the opponent.

Boxers can also have two tennis balls. While dribbling with one the other is supposed to be tucked to the chin with the none-dribbling hand. The objective here is to stimulate the perception of none-dribbling hand and its optimal position while the other hand becomes the dribbling one.

Objective:

Concentration, coordination of eye-hand-leg movement, fine motor skills, punch coordination, peripheral vision, counter punching reaction, counter punching side stepping

Audio-video material: Video 11

2.12 Counter punching dribbling in pairs

Equipment:

Tennis balls

Number of players:

Arbitrary

Age/Level:

8 – Unlimited/beginners to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Each boxer has his own tennis ball and the objective here is to dribble it while staying in consistent boxing stance. Each dribble of the tennis ball off the ground is the equivalent of single punch thus each dribble is supposed to be associated with all the proper parts of a punch such as rotation of the body, weight shifting and exhalation. Then two basic counter punches with side-steps are explained. Check-hook counter punch and side cross counter punch. On the count to two or three done by one of the boxers or a trainer or a coach, boxers are supposed to react with either counter punch as fast as possible after the acoustical signal but also pass the tennis ball via the dribble off the ground to the other boxers.

Alternations:

Boxers can also be placed inside the ring and can be tasked to shadow dribble one other which means that they are supposed to move in the consistent manner as a boxer should move inside the ring while facing the opponent.

Boxers can also have two tennis balls. While dribbling with one the other is supposed to be tucked to the chin with the none-dribbling hand. The objective here is to stimulate the perception of none-dribbling hand and its optimal position while the other hand becomes the dribbling one.

Objective:

Concentration, coordination of eye-hand-leg movement, fine motor skills, punch coordination, peripheral vision, counter punching reaction, counter punching side stepping

Audio-video material: Video 12

2.13 None-attacking hand exercise

Equipment:

Tennis ball, bandages, focus mitts

Number of players:

Arbitrary optimally in pairs

Age/Level:

10 – Unlimited/intermediate to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Boxers create pairs in which one holds the focus mitts and the other one has bandages on and also a tennis ball. Boxers engage into a movement while the one in possession of mitts holds up either mitt to catch a jab or a cross the other boxer is supposed to hit the mitt with the corresponding punch while maintaining the none-attacking hand tucked by the chin with the tennis ball touching the cheek.

Alternations:

This exercise can be also executed inside the ring while the one boxer holding the mitts also controls the movement of the boxers throwing the punches in order to stimulate him or her to the proper ring movement.

Objective:

Concentration, coordination of eye-hand-leg movement, fine motor skills, punch coordination, fixation of optimal position of none-attacking hand, movement generalship

Audio-video material: Video 13

2.14 Four circles

Equipment:

Four athletic circles

Number of players:

One

Age/Level:

10 – Unlimited/intermediate to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Four athletic circles are placed in the middle of the ring so their midpoints create inscribed square with the identical midpoint as is the midpoint of the entire ring. Coach, trainer or the other boxer moves around the ring closer to the ropes while the task of the other boxer, who is currently doing the exercise, is to stay with the rear leg always inside of the circles while maintaining the optimal long distance stance from the other boxer, coach or trainer who is moving around the ring closer to the ropes.

Alternations:

This exercise can also be combined with none-attacking hand exercise or foam sticks exercise.

Objective:

Basic steps optimization, movement generalship, ring generalship

Audio-video material: Video 14

2.15 Expander usage to optimize width of stance

Equipment:

Expander

Number of players:

One

Age/Level:

10 – Unlimited/beginner to highly advance

Game length:

1 to 2 rounds 2 – 3 minutes long

Game description:

Expander is adjusted by trainer or a coach to the optimal width that a particular boxer is supposed to acquire. Then the expander is put on both legs of the boxer and the objective is for the boxer to keep the expander stretched at all times while shadow boxing or dribbling with tennis ball.

Alternations:

Exercise can be combined with four circles exercise, none-attacking hand exercise or foam sticks

Objective:

Optimization of width of stance, removing the problem of too narrow stance

Audio-video material: Video 15

2.16 Sliding and bobbing and weaving exercise drills

Equipment:

None

Number of players:

Arbitrary, optimally an even number so the pairs can be created

Age/Level:

10 – Unlimited/beginner to highly advance

Game length:

2 to 4 rounds 30 - 60 seconds long

Game description:

Boxers create pairs in which for a given amount of time one of them becomes the attacking boxer and the other becomes the defending/sidestepping boxer. Boxers stand against each other. The attacking boxer has four ways to engage in attack. Two on each left and right side. First way is to raise either arm upright and then with the walk towards the defending boxer while continuously lowering the arm down by the waist aiming for the center mass of the defending boxer. This can be executed with either hand. Second way to engage in attack is to stretch the arm sideways and walk towards the defending boxer while continuously stretching the

arm forward also aiming for the center mass of the defending boxer. This attack can also be executed via either hand.

The objective of the defending boxer is to slide or bob and weave to the according side of the attacking boxer. Optimally the defending boxer should slide or bob and weave by the outer side of the attacking boxer in order to end up after the defensive movement behind the punching hand and next to the attacking boxer with the slight angle change that is supposed to be adjusted with additional movement so the attacking boxer is after the attack in disadvantageous position.

Alternations:

Game can be associated with additional shadow boxing combination after the slide or bob and weave while the side-stepping optimizing the stance towards the opponent while throwing punches.

Objective:

Sliding, bobbing and weaving, side-stepping exercise

Audio-video material: Video 16

2.17 Foam sticks

Equipment:

Swimming foam sticks approximately 0,5m long

Number of players:

Arbitrary, optimally an even number so the pairs can be created

Age/Level:

8 – Unlimited/beginner to highly advance

Game length:

2 to 4 rounds 30 - 60 seconds long

Game description:

Boxers create pairs in which for a given amount of time one of them becomes the attacking boxer and the other becomes the defending boxer. Boxers stand against each other. The attacking boxer holds two foam sticks one in each hand and is supposed to attacking the other boxer via hitting him in punch-like similar manner with foam sticks. The defending boxer is supposed to primarily cover, parry or block coming attacks when the boxer is capable enough also a slide or bob and

weave can be used. Defending boxer is trying to move around the attacking boxer adjusting the stance, position and distance at all times depending on the coming attacks.

Alternations:

Game can be combined with sliding and bobbing and weaving exercise drill

Objective:

Movement generalship, ring generalship, observation, perception, sliding, bobbing and weaving, side-stepping exercise, adjusting distance, progressive eliminating of fear from being punched/touched (physical contact)

Audio-video material: Video 17

2.18 Ring movement optimization

Equipment:

None

Number of players:

Arbitrary, optimally an even number so the pairs can be created

Age/Level:

12 – Unlimited/intermediate to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Coach enters the ring with one boxer after the optimal ring movement has been explained. Then the coach moves around the ring recreating the type of the opponent for the boxer who is inside the ring with him that would probably make the boxer make the mistake he or she is trying to dispose of. The coach can also create situations in which a boxer is prone to make a certain individual mistake in order for the coach to be able to point out the mistake and re-do it correctly instantly.

Alternations:

This game can also be combined with the game “Four circles” or “None attacking hand exercise.”

Game can also be associated with shadow boxing while moving depending on the level of advancement of a boxer doing this exercise.

Objective:

Concentration, movement generalship, ring generalship

Audio-video material: Video 18

2.19 Inside fighting exercise

Equipment:

Sparring gloves, helmets, mouth-guards, suspensors, expanders, scarfs

Number of players:

Arbitrary, optimally an even number so the pairs can be created

Age/Level:

12 – Unlimited/advanced to highly advance

Game length:

1 to 3 rounds 2 – 3 minutes long

Game description:

Boxers wear complete sparring equipment and a scarf or some other covering material is worn over their eyes so neither of them see. They are bound to each other around waistlines via rubber expander. Then they engage in sparring.

Alternations:

This exercise can be done without eyes covered when the boxers are not capable enough. This decision depends on coach or a trainer.

Objective:

Overall boxing skills, inside fighting skills, heightening the intuitive skills, reducing the stress of inside fighting

Audio-video material: Video 19

3 OVERVIEW

3.1 Specification of overview

In this part all the exercises are placed into two specific tables. In the first table the exercises are specified according to what abilities they have a potential to develop. Second table assess the exercises according to what skills they develop. Thus enabling easier orientation while implementing into a training unit and training cycle.

3.2 Tables of organizations

1) Table no. 1: Abilities

	Conditioning ("Energetic") Abilities				Hybrid ("Mixed") Abilities			Coordinating ("Informational") Abilities			
	Aerobic endurance	Anaerobic endurance	Streight endurance	Maximum streight	Speed streight	Action speed	Reaction speed	Balance	Rhythmics	Orientation	Differentiating
Agility ladder exercise of boxing walk	×					×			×		×
Jab exercise with bosu balance half-ball								×	×	×	×
Tag Game		×				×	×			×	×
Mirror - basic movement							×			×	

Mirror - shadow boxing	×					×	×			×	
Numbers			×			×	×			×	×
Colors			×			×				×	
Tennis ball on the wall						×	×			×	×
Lead hand exercise with tennis ball	×							×		×	×
Dribbling with tennis ball							×		×	×	×
Counter attacks with tennis balls							×		×	×	×
Counter punching dribbling in pairs							×			×	×
None-attacking hand exercise					×					×	×

Four circles	×									×	
Expander usage to optimize width of stance	×							×		×	
Sliding and bobbing and weaving exercise drills	×						×		×	×	
Foam sticks	×					×	×			×	
Ring movement optimization	×						×			×	
Inside fighting exercise		×				×	×	×		×	×

2) Table no. 2: Skills

	Gross X Fine Skill		Open X Closed Skill		Discrete X Serial X Continuous Skill		
	Gross motor	Fine motor	Open	Closed	Discrete	Serial	Continuous
Agility ladder exercise of boxing walk	X			X	X	X	
Jab exercise with bosu balance half-ball	X			X	X		
Tag Game	X		X			X	
Mirror - basic movement	X		X		X		
Mirror - shadow boxing	X		X			X	
Numbers	X		X			X	

Colors	X		X			X	
Tennis ball on the wall	X	X	X			X	
Lead hand exercise with tennis ball	X	X	X			X	
Dribbling with tennis ball	X	X	X			X	
Counter attacks with tennis balls	X	X	X			X	
Counter punching dribbling in pairs	X	X	X			X	
None-attacking hand exercise	X		X			X	
Four circles	X		X			X	
Expander usage to optimize width of stance	X		X			X	

Sliding and bobbing and weaving exercise drills	X		X			X	
Foam sticks	X		X			X	
Ring movement optimization	X		X			X	
Inside fighting exercise	X		X			X	

4 DISCUSSION

To assess the thesis myself I do have to acknowledge that I have reached certain points where I was doubting the real innovation in such an approach since the line between innovation and alternation or simple copying and adjusting was too thin to make it a part of this thesis. I also did not want to spend too much of this work on theoretical explanations of given things. I am convinced that the potential reader of this thesis is roughly acquainted with boxing in general having already reached for this thesis thus I did not want to spend too much space with it. I did not wish to change anything about specific boxing requirements or techniques, too, I only wish to shed some light onto specific approaches detected via finding a research gap that may be used in technical and tactical boxing training.

As this work was primarily designed, the relevance for branch of boxing is supposed to be its main asset. This work is oriented on specific part of specialized boxing training and it is supposed to widen the means of technical and tactical part of specific boxing training. Moreover, it is supposed to provide the boxing public with particular grounding and preparatory exercises in order to accomplish so.

Numerous questions have arisen during the creation of this work. Is this the way to approach the subject at all? Meaning whether this particular method and its procedures are proper in approaching the subject of innovation in boxing. So far most of the official sources of specific boxing education were written and highly theoretical even when talking about practical matters. This work is supposed to bring these aspects together in cooperation between these two.

Certain polemic lies in the fact that the practical part that is supposed bring the innovation into the matter. It is dealing with razor edge boarder regarding the fact that its innovations lie in implementing modern day equipment and combining the knowledge and approaches from different sports. So the questions rises to what an extend is in the aforementioned innovation or a simple implementing a same approach into a different sport.

As an author of this work I stand my ground regarding the asset for the field. I reason the future of this field lies in implementing modern day methods and approaches as mentioned in this thesis. Future challenge may be for this suggested approached to be systematized and worked on more deeply that in this thesis. This thesis is supposed to only suggest the course that the boxing research and training can proceed.

5 SUMMARY

This thesis is organized into theoretical and practical part. In theoretical part an objective, assignment and methodology is specified and also a basic information about boxing is provided. Such as what kind of a activity it is, what sort of an equipment is needed and also basic rules. Reader is also familiarized with physiological requirements of boxing as a physical activity.

Practical part of this thesis provides the suggested exercises, drills and grounding work organized from basic to more advanced ones. Most of them are highly specialized for boxing and their primary outcome is to improve and develop particular technical and tactical means of boxing. The innovation of those exercises lies in implementing new and non-traditional equipment into a process just as well as suggesting new approaches and variations adjusted for specific needs of boxing's training.

In order to organize the exercises so that the user of this thesis can acquire easier orientation two tables are provided. First table organizes individual exercises by the abilities, second table organizes exercises by skills.

All the exercises are mainly designated to be used during the main part of the training unit, some may be used during the initial part of training unit but mostly are recommended to be used during the main part.

All the exercises are of a technical-tactically directed so even though some of them also have the potential to be used as conditioning exercises the primary usage is recommended as specific boxing technical and tactical grounding work.

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APPENDIX

Appendix 1: CD-ROM

RÉSUMÉ

The subject of bachelor thesis is Innovative methods in boxing training. Theoretical part summarizes boxing as a physical activity with its specifics and requirements. It provides research findings on particular boxing training approaches and presents the research gap which the practical part is aiming to deal with. Practical part of this thesis presents the concrete methods and exercises which can be implemented into a boxing training using modern day sports equipment and innovative approaches which are supposed to provide a grounding and preparatory drills to develop specific boxing technical and tactical means.

RESUMÉ

Tématem této bakalářské práce jsou inovativní přístupy v tréninku boxu. Teoretická část shrnuje box jako fyzickou aktivitu se všemi jejími specifiky a požadavky. Poskytuje výsledky bádání v oboru specifického boxerského tréninku a prostor k rozvinutí současných poznatků se kterým je následně pracováno v praktické části. Praktická část přináší souhrn konkrétních postupů a cvičení, které mohou být implementovány do boxerského tréninku za užití moderních tréninkových pomůcek a inovativních přístupů, které mají za úkol poskytnout průpravná a přípravná cvičení k rozvoji specifických technicko-taktických prostředků.