

Dance Sport

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DanceSport

Textbook for Institutes of Higher Education

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FOREWORD

Dance is one of the most pleasant forms of physical activity and mental training, since it aligns the body and mind in perfect harmony. It has persisted in various forms for centuries and has become an inseparable part of the culture of almost all of the world's nations. Dance is also one of the basic human sport activities and has thus become a part of sport competitions.

In our opinion, many more people practice dance nowadays than in any given time in the past. Dance has become one of the most vivid phenomena of the 21st century both in sport and culture due to a number of factors such as the revival of the interest of people in maintaining physical fitness and a healthy lifestyle, as well as the appearance of celebrities in television dance shows.

DanceSport is the final form of the evolution of ballroom dance and is a discipline connecting both sport and art. In the early 1990's dance sport was classified as an artistic sport discipline – this category also includes modern gymnastics, synchronized swimming and figure skating, to which danceSport is the most frequently compared.

DanceSport in its peak performance approaches art. While observing the best dance couples, the viewer can enjoy diverse dance figures, the beauty of movement, glorious techniques, a certainty of execution, a characterization of the dance and the accompanying music as well as the atmosphere created by the performance of the couples.

This textbook presents an overview of significant and verified theoretical and scientific knowledge on the issue of DanceSport. It was written with the aim of enriching the existing dance literature by another theoretical and scientific material, which should help the students in their education. The textbook is intended primarily for students of Dance and DanceSport Coaching, students of Physical Education Pedagogy, students of Physical Education at other faculties, teachers of Physical Education at all levels of schools as well as for coaches of DanceSport.

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1 THE ESTABLISHMENT OF COMPETITIVE DANCE AND INTERNATIONAL DANCESPORT

The term competitive dance was not used in the past. Even though it is considered a sport nowadays, the top competitive form of ballroom dance is supposed to be viewed as an art according to various individual experts, who have been promoting this position since the interwar era. The first competitions in modern dance took place before the First World War, mainly outside Central Europe. The international Berlin championship took place in December 1912. The dances of the competition were One Step, Boston and Tango and it was won by Serbian Niki Georgević and his partner. Second came Berliner R. L. Leonard with his partner, who, according to the news, danced in Variété style and, in accordance with the habits of the elegant society of contemporary Berlin, wearing hats.

Very few competitions took place in Europe during the First World War – a real boom of competitive ballroom dance only occurred after its end and was linked to the spread of modern dance all around the world. The first amateur dance club of Czechoslovakia was established in 1923 in Prague (Amateurský taneční klub – ATK). It was established by a society of lawyers who intended to devote the majority of their free time to competitive dance. Their commitment was proved by frequent training and the organization of dance competitions. In a short time, this club became the hatchery of the best dance couples of contemporary Czechoslovakia whose performances were often of higher quality than those of professionals. Amateur clubs were promoters of dance news right from their beginnings and organized both club and non-club competitions. The ATK, as the most influential club in Prague, initiated the establishment of the Czechoslovak Amateur Dance Federation (Československý amateurský taneční svaz – ČSATS) in 1926. By this time Prague had already been home to approximately fourteen amateur dance clubs, the most well-known being the ATK, the Czech Dance Club (Český taneční klub – ČTK), the Karlín Dance Club (Karlínský taneční klub – KTK), the Žižkov Dance Club (Žižkovský taneční klub – ŽTK), the Prague Dance Club (Pražský taneční klub – PTK) and others.

By 1933 approximately twelve dance clubs with roughly 1 100 members were members of the ČSATS. The first Czechoslovak championship was held shortly after the establishment of the ČSATS, during the 1926/1927 season. It was won by A. Vinařský and V. Koptová.

The ATK also participated on the organization of international dance competitions: it organized the first two important European competitions, The Central European Championships, in the 1928/1929 and 1929/1930 seasons. The best couples of the ATK as well as of other clubs participated in international competitions. These often had the forms of an entire dance tour taking place at different locations. The most successful dancers were Bedřich Popovský, Sláva Kokoška, František Novotný and Josef Trubač – they might be called “the first musketeers” of the Czechoslovak amateur competitive dance (Slimák 2003; Jenčík 2009).

Competitions took place mainly on a national level in the early 1930's, since there was no umbrella organization which would get in charge of organizing international events. On 10th December 1935 the **FIDA** (International Amateur Dancers Federation) was established in Prague. It united the national dance federations of Austria, Czechoslovakia, Denmark, England, France, Germany, the Netherlands, Switzerland and former Yugoslavia. Shortly after its establishment, the FIDA was joined by the Baltic countries and later also by Belgium, Canada, Italy and Norway. The first official World Championship took place in 1936 in Bad Nauheim, Germany and was attended by couples from 15 countries and three continents. However, after the Second World War, disputes among professionals and amateurs began to grow, resulting in the suspension of all FIDA activities and the establishment of the **ICAD** (International Council of Amateur Dancers) in Germany in 1957. Nevertheless, these problems had not influenced the general interest in competitive ballroom dance which came into the limelight after being first broadcast by the German television in 1960. In 1961, Latin American dances were first introduced during the dance festival held in the English spa town of Blackpool (its uniqueness and history has often been compared to tennis in Wimbledon since 1920) and they were added to Standard Dances in the form known today in 1964 (Yoo 2009).

Nonetheless, competitive ballroom dance found itself in a certain isolation, which was supported by the fact that it was not accepted neither as an artistic form of dance, nor as a sport discipline, even though it was supported by state sport institutions in some countries. Hence, the term DanceSport began to be introduced in the 1980's in order to distinguish between the sports (athletic) form of the dance and the social one.

DanceSport is viewed as the result of the transformation of ballroom dance with the aim of creating a format which can be judged according to international criteria (Picart 2006). The International Federation made its intentions clear in 1990, when it changed its name to International Dance Sport Federation – **IDSF** and began serious attempts to gain membership in the International Olympic Committee (IOC). The switch to sports principles had been convincing and brought almost immediate results: the IDSF became a regular member of the General Association of International Sports Federations (GAISF, currently Sportaccord). DanceSport became an IOC member at the 106th IOC meeting in 1997, meaning it joined the waiting list to become eligible to be a part of the Olympic games programme. During the same year, DanceSport was officially introduced at the World Games held in Lahti, Finland. It was also a part of the programme of the 2001 World Games held in Akita, Japan, where Slovak dance couples participated too. The World Games are considered “the Olympics of non-Olympic sports” – sports which are members of the International Olympic Committee but are not a part of the Olympics programme.

One of the most interesting competitions in the modern history of DanceSport regarding the number of audience took place at the 9th World Games in Cali, Colombia on 4th August 2013. The event began by the official opening ceremony held at the Pascal Guerrera stadium with the seating capacity of 35 thousand on 25th July 2013. This world competition was the most intriguing and also the biggest sports event of 2013. Over four thousand athletes from 120 countries competed in 31 disciplines, DanceSport being one of them.

DanceSport was the second most viewed sport at the 2003 Asian Indoor and Martial Arts Games held in Incheon, Korea and also met the huge interest of the audience at the 2009 World Games in Kaohsiung, Taiwan.

Another important step in the modern history of DanceSport was setting up an anti-doping commission and signing the World Anti-Doping Code in 2001.

The IDSF has recently joined several other dance associations such as the World Rock'n'Roll Council (WRRC), the United Country Western Dance Council (UCWDC) and the International Dance Organizatoin (IDO). Furthermore, it facilitated the development of Wheelchair DanceSport, which has become a member discipline of the International Paralympic Committee.

The IDSF decided to change its name as a result of these changes and has been using the title World DanceSport Federation – **WDSF** since June 2011. It currently has 98 national member bodies (www.worldDanceSport.org).

DanceSport in its current form is an intense artistic presentation bringing along the improvement of performance quality and musical interpretation, both playing an important role within the discipline (Laird 1995).

2 THE CHARACTERISTICS OF DANCESPORT

DanceSport is an “aesthetic sport” together with disciplines such as figure skating, rock and roll, synchronised swimming as well as artistic and rhythmic gymnastics (Chren 2013). Other authors use the term “aesthetic-coordination sport” which also includes diving, trampolining and other gymnastics. The main goal of these sports is an exact performance of difficult movement structures with a dominant focus on the clarity of execution, aesthetic aspects of the exercise and the overall artistic impression. Technical proficiency determining the performance itself dominates the movement manifestations of aesthetic sports, which ultimately corresponds to the aims of the sport and thus plays an important role in the evaluation of the adjudicators (Strešková 2007). In terms of the classification of sport performance, DanceSport can be categorized among technical-aesthetic-coordination performances. A precise and aesthetically impeccable performance of a demanding assembly of movements is essential in this category. Furthermore, a large number of movement skills is necessary, which highlight the complex structure of the combination of movements and the need to master movement skills on a high level of automatization and creative coordination.

From the physiological point of view, DanceSport is characterized by a high elasticity of the central nervous system, a large use of energy and the regulation of movement activities with an utter focus on quality. Aerobic metabolism prevails in slow dances, while anaerobic metabolism prevails in the fast ones (Chren 2015).

DanceSport exerts high demands on both static and dynamic balance, sensorimotor coordination in time and space, movement creativity and expressivity (the expression of a thought by movement).

DanceSport is a phenomenon with a wide spectre of influence on both the society and the individual. It is a relevant part of sports, arts and culture and has a number of other aspects which secure its specific position among other sport disciplines. It focuses on proper posture and the overall looks, on aesthetic,

musical and emotional education, as well as on the relationship towards the opposite sex and the ability to present oneself.

DanceSport is always a movement activity performed by two partners of the opposite sex. DanceSport differs from other technical-aesthetic-coordination sports in accordance with the following basic criteria:

- The basic performing unit are two individuals of the opposite sex: a man and a woman, a boy and a girl. Such teams appear in a number of other sports; however, the cooperation of two individuals in DanceSport resembles coexistence in a partnership and is mentally highly demanding (Odstrčil 2004).
- DanceSport is essentially linked to music. Numerous sports use music as a means of connecting a group of sportspeople and as an enhancement of their performance. However, in most cases the sole function of music is to synchronize the group or to create a common rhythm, while in DanceSport it is the main inspiration of the dance performance.
- The third basic difference is the way of competing. DanceSport is the final form developed from ballroom dance which is based on common dance: several dance couples compete on one dancefloor at the same time. This means that despite being an individual sport, DanceSport incorporates aspects of team competing.

The long period of the self-reflection of DanceSport as a competitive discipline oscillating between arts and sports as well as between emotions and physical performance in the 1970's and 1980's had ended after it entered the world of sports. However, a certain bipolarity has remained characteristic of DanceSport up to the present day and maybe this causes its high attractivity among the wide audience (Horáček 2004).

DanceSport is created by a group of couples which attend organized dance competitions where they present their abilities and performance in a direct contest with other couples on the dancefloor. They are evaluated by judges, who decide the best couple. Apart from the jury, the dancers also want to impress the audience, for which DanceSport performances is mainly an aesthetic

experience. Dancers wear unique costumes and attempt to present not only the proper movement technique but also the mood and character of the individual dances. This sport usually defines the entire lifestyle of the dancers whose performance conveys their own, unique path of looking for perfection as a continuous effort to find the origins of an indubitable athletic and rhythmic quality. The search for this individual expression often lasts for decades (Chren 2008).

DanceSport offers its performers the same qualities as other sport disciplines: physical and mental challenge, fitness, learning about different people, countries and cultures, the feelings of win and loss, team spirit and individual uniqueness (Odstrčil 2004).

DanceSport has significantly “accelerated” in the past decade and a half. This means that the calendar of competitions, especially the international one, continuously keeps growing: it is rather difficult to find a weekend without a World DanceSport Federation (WDSF) competition, except the Christmas and New Year period. Another meaning of the term “accelerated” which we use in this context lays in the speed by which couples move on the dancefloor – the movement has grown significantly faster. This trend is especially perceptible in fast dances, but one might observe it in slower ones, too. World-class top dance couples perform very fast step sequences which require a perfect coordination of movements not only at an individual level, but mainly of the couple as a whole. These gradual changes oblige the successful dance couples to cultivate significantly more endurance capabilities than in the past. Dance couples which are at the top of the WDSF world chart attend up to 30 WDSF competitions a year. We also need to consider the national competitions in the individual countries and we reach the number of approximately 40 competitions a year (Kohout 2012). There are two main categories of DanceSport: Standard and Latin American Dances (Chren 2005).

2.1 THE CHARACTERISTICS OF STANDARD DANCES

The characteristic features of Standard dances are a fixed closed position of the partners and their grandiose movement around the entire dancefloor. Men usually wear tailcoats and the ladies wear long luxurious gowns. The choreography, character and basic principles of these dances have not changed much since their beginnings. The original English style, which was characterized mainly by nonchalant elegance and an admiration for the dance technique, has gradually moved towards impetuosity, an admiration for beauty, romance and a deep emotional experience of the music. The term “International Standard” was used in the USA to designate dances elsewhere known as Standard dances, while allowing space for the creation of the American Smooth Dance category, including Waltz, Viennese Waltz, Tango and Foxtrot, which allowed for an open position and more freedom of expression compared to the European version.

The roots of Standard dances can be found in formal dances which used to be limited exclusively to the rich social classes. Nowadays competitive couples dance faster, have more dynamic sets of movements, posture is more correct, and rotations are much faster, dynamic and larger. However, the description of the individual steps and figures created in the 1930's are still valid.

The original English style, dominant and hegemonic in the early eras of competitive dance, eventually led to the creation of several dance styles, which currently allow for high levels of individuality presented on the dancefloors of Standard dance competitions.

Significant changes have also occurred in the dressing of dance couples. Gentlemen's tailcoats are sewn in order to fit perfectly the figure of the dancer, soft and flexible materials are used, design and, even more importantly, functionality are taken into consideration. Ladies' gowns are richly decorated to create an impression of panache and luxury. However, the fabrics used are light and fine, in order to deliberately highlight the curves and lines of the dancer's body.

Standard dances include:

- Waltz;
- Tango;
- Viennese Waltz;
- Foxtrot;
- Quickstep.

Waltz is one of the dances utilizing the swing principle of movement. The basic steps are simple and easy to learn even for beginners. The swing movement is based on the principles of countermovement, proper knee exertion and release and undisrupted, continuous movement. Waltz is characterized by the highest amplitude of compressions and lifts among all swing dances. The basic rhythm of the dance must be visible and apparent in the first beat, which is accentuated in the music.

Tango differs significantly from the other Standard dances. It is characterized by walking steps and is the only Standard dance not to apply swing movements. The specific atmosphere of the dance is co-created by staccato movements. The hold is more compact than in other Standard dances, but the movement is soft with a sharp ending. Each step forward is led by the right side of the body with a slight left turn. The knees are slightly bent and the feet grounded. Any necessary lift of the feet must be absorbed by the knees.

Viennese Waltz is a highly attractive dance. It is characterized by large movement on the dancefloor. It is conducted in a relatively swift mode which requires a significant physical fitness of the couples. It uses less compressions and lifts than Waltz while performing more rotations. Since it includes relatively few figures, the WDSF allows an unlimited repertoire for couples of the highest competitive category. The basic figures include the right turn, left turn and forward change.

Foxtrot requires advanced dancers. Its most typical feature is a smooth movement which moves the centre of gravity in a continuous and undisrupted manner. The change of slow and fast steps creates a smooth movement which needs to be relaxed and performed impeccably. The dance is based on swing movements created by bouncing off the standing leg carrying the body weight. Foxtrot is one of the most typical examples of the English style of dance.

Quickstep is based on walk and change: all of its basic figures are created on the basis of these two main movement motives. The forward walk is similar to the walk used in foxtrot, but faster. Quickstep is one of the fastest Standard dances and its top competitive form requires serious physical training of the dancers (Loja 1998).

2.2 THE CHARACTERISTICS OF LATIN AMERICAN DANCES

Dances which derive their origins from the countries of central and Southern (Latin) America appeared in Europe shortly after the First World War. The dances of these region developed by a fusion of the cultures of the Spanish and Portuguese colonizers with the domestic culture of the native tribes, which was gradually further influenced by the culture of the black population. Two distinct categories of Latin American and African American Cuban dances and music were created in the process: Spanish melodic and dance / movement aspects prevailed in Mexico and Argentina, while African ones became dominant in Brazil and Cuba (Lavelle 1969).

The typical features of Latin dances and their accompanying music include a high rhythmic variety, temper, rebelliousness, sensuality, animosity and a huge emotional charge. Despite efforts of standardization, the content of these dances is often more typical than their form.

Latin American dances are much younger than the Standard ones, since their programme only became established in the 1960's. Their current form is mainly the result of the efforts of British dance teachers. In their examination one should not look for the original forms of folk dance rooted in the fusion

of African and American culture, considering that their present form reflects the European, mainly British, view. Opinions of their forms were developing in various stages. At first, they were only simple imitations of attractive movements set within the framework of Latin rhythms played by European orchestras. However, as the essence of African and Jazz dances was gradually discovered, the competitive form of Latin American dances was also revised. While in the 1960's they had mainly consisted of standardized movements carrying many signs of Standard dance techniques, they were revived in the 1980's and movements of the whole body began to be applied (Laird 1988). Dancers started using Jazz dance techniques and couples' dance returned and replaced the individualized performance where dancers danced next to each other. The man re-took the male role, while the woman the female one: they did not dance as two individuals anymore; they rather constituted a dance unit – a couple.

Latin American dances are more relaxed in the couples' hold as well as in dressing and freedom of movement in space. In terms of movement techniques, Latin American dances can be categorized as bouncing (Samba), marching (Cha Cha, Rumba and Paso Doble) and swinging (Jive) (Štiavnický 2004).

A typical feature of Latin American dances is the varying movement of individual body parts: various body parts conduct various movements in various rhythms and various dynamics. Furthermore, Latin American dances require conducting several actions with the same body part at the same time. Latin American dances include the following:

- Samba;
- Cha Cha;
- Rumba;
- Paso Doble;
- Jive.

Samba is an inherent part of the Brazilian culture. However, its history is not quite clear. Its foundations are probably based on Batuque, a Brazilian folk

dance. Dancers used to dance a swinging-bouncing march – marchas – to the sound of the chocalba, cobaci, recó recó and other musical instruments. They would dance in a circle around a dancer who would occasionally invite one of the dancers to join them inside the circle using an ostentatious gesture called sembo, which probably also gave Samba its later name. The dance has already gained massive popularity in the Brazilian folk carnivals of Rio de Janeiro 150 years ago. It only reached Europe in 1913, shortly before the First World War, under the name Maxixe. However, Europe was experiencing a Tango fever and Maxixe, performed mainly on the dancefloors of nightclubs, did not gain widespread attention. Due to the sufferings of war, it was soon forgotten. It returned to European dancefloors, namely to Paris, in the 1923/1924 dance season in a form modified by French, mainly Parisian, experts to be suitable for salons. It began gaining popularity, yet the Second World War halted its spread and Samba became popular in Europe only after the end of the war in 1945. To capture the character of samba, dancers should adapt to flirting and the carnival mood. Samba figures require a special tilting pelvis movement. Another important movement is the samba bounce originating in the knees.

Cha Cha is the youngest Latin American dance. It is provocative, cheerful and carefree. Cha Cha was created in the early 1950's in Cuba when original folk rhythms, collectively referred to as Rumba, became influenced by Jazz elements. It entered Latin dance competitions in the early 1960's. Cha Cha is based on chassé – a figure of three steps where one foot displaces the other – danced on accented beats in each bar. It is a dance of relaxation that leaves a lot of positive energy in the dancers. The rhythm of Cha Cha is not complicated. It is characterized by a movement of the knees, pelvis and hips, originating in the transfer of weight from one foot to another. The hips move to the sides and back, therefore the leg carrying the weight of the dancer is straight with the knee stretched all the way to the back and the weight gets closer to the heel. This movement should not be transferred to the upper part of the body and should not change its posture. However, the stretch of the spine should not block this characteristic movement.

Rumba is one of the favourite Latin American dances. It had first found its way to Europe in 1923 but did not gain immediate popularity due to its difficult rhythm. It returned in the 1930's with a modified rhythm and became very popular. Its style and technique have significantly influenced the fundamentals of other Latin American dances. At its beginnings, Rumba was a dance of freedom, imitating courting. Its later versions transferred these bodily impulses to the world of people, causing them to feel excited. The distinctive music with erotic rhythms reminds one of a woman attempting to attract the attention of her chosen man with sensual and seductive movements. Rumba is a dance of the body. The hip movements are a result of a controlled transfer of the dancer's weight from one foot to another.

Paso Doble originates in Spain and France. It used to be performed to celebrate bull fights and is enriched by Flamenco elements. Its uniqueness is underlined by the accompanying music, which has a settled structure with typical "crowns" creating the illusion of a certain story. The basic figures are inspired by the movements of the toreadors and their helpers in the arena. The female partner does not imitate the movement of the bull, but rather a scarf, a Flamenco dancer or the toreador's cape. Flamenco enables the female partner to take up a more equal role and use the typical hand movements originating in the use of castanets. Paso Doble was only included in the competition programme in 1959, yet it has been danced by professionals at the World Championships since 1947.

Jive is the last dance performed at Latin American dance competitions. It comes from U.S.A. and arrived in Europe under the name Jitterburg, known as Boogie-Woogie in the 1930's. Its standardized form was established in the 1940's. Adjudicators prefer to see dancers performing Jive in several styles and applying the individual figures in accordance with the type of the accompanying music. Jive is the last dance of the competition and is physically highly demanding, especially in terms of the overall physical fitness of the partners (Laird 1995; Komora 2002; Maxwell 2003).

3 PERFORMANCE IN DANCESPORT

Sports performance in DanceSport reflects a long-term sports and dance training. In countries with a significant dance tradition children begin to dance competitively around the age of 6 and achieve very good results at the relatively young age of 16–17 years after approximately ten years of training (Chren 2015).

Sports performance among DanceSport athletes achieving an international level is comparable to performance in other sports disciplines. Sports performance in DanceSport consists mainly of the presentation of a dance composition of individual dances by a couple. Performance quality in its strict sense means an exemplary demonstration of kinematic characteristics of the composition in conjunction with the accompanying music (Chren 2005). The dance composition must include an accurate technical demonstration of the basic steps in accordance with the pace of the accompanying music, varying step variations, an engaging choreography, dance steps and figures characteristic of the given dance, as well as numerous turns, movements or positions that require a demanding ballet or gymnastic training. All dance variations take place on the dancefloor in accordance with established rules. Various carrying figures are prohibited while different kinds of jumps, occurring often in e.g. Jive and Quickstep, are allowed. The faces of both dance partners should radiate engagement in their performance and an effort to attract the jury and audience as much as possible. The dance couple is also supposed to present a mutual harmony. The quality of dance performance lies mainly in technical training, which is undoubtedly one of the most essential components of DanceSport (and sports in general), training. This is also the reason why dance is one of the most technically demanding sports with high demands on endurance skills. Thus, it is necessary to develop endurance, both general and special, in order to conduct some dances undertaken with submaximal intensity. The entire time of the competition, from the warm-up to the finals, may last one to two days, which requires readiness and fitness, understood as the ability to perform a high-quality dance for a prolonged period of time. This leads to a heightened activity of the cardiovascular, respiratory and other systems of the human body (Kostić 2001).

Various dances require various movement techniques. The bodies of the dancers continuously transform from one spatial shape to another which requires a fast reaction rate. The couple uses the given speed to conduct accurate changes in figures. The speed of each dance is prescribed by the rules and each dance is performed for 1.5 to 2 minutes. Dancing requires a high level of aerobic endurance (load often lasts longer than 30 – 50 minutes and is performed with varying intensity, both at trainings and competitions), dance specific endurance as well as speed-specific endurance, which can be observed mainly in Jive, Samba, Viennese Waltz and Quickstep. The development of anaerobic endurance is essential among couples of classes B, A and S where the load intensity is high enough to be within the anaerobic range (Chren 2008). The structure of dance techniques of both basic and free repertoire requires flexibility, static as well as dynamic, of the joints, tendons and muscles of the entire body. Flexibility enables the dancers to increase the level of the technical and aesthetic demonstration of dance figures and movements, the extent of which is the most important component of their assessment. The range of spine and leg movements of both partners are reflected in various dance figures. Visible posture and an overall body consciousness of dancers are directly influenced by joint flexibility and the activation of the stabilizing muscle system. A proper and gracious posture is among the main criteria of evaluating sports performance in DanceSport (Chren 2006). High-quality dancers should be able to exhibit a high level of flexibility, agility and explosiveness: their quality always directly influences the overall judgment of the team of judges. No dancer can perform without a proper body coordination, especially the coordination of arms and legs. Dance positions where the partners maintain each other's balance require the development of strength and balance. Mainly the lower limb, muscular and back strength need to be developed by isotonic and isometric exercises. Speed and strength abilities – overcoming resistance by high speed or frequency of movement – are essential: this means the performance of a relatively complex set of a high number of movements during a given time unit. The development of a maximum strength is not necessary in such a case: the lower limbs, their speed and agility are of decisive importance. A successful couple performs

at a competition several times in a row in a certain time period – on average four to eight rounds and up to 40 dances in a single competition (Kuchárová 1998).

4 LOAD IN DANCESPORT

DanceSport is an interval sport. Load intervals with both short and long breaks for rest occur during a DanceSport competition. Optimizing and deploying physical resources is an essential factor in DanceSport. Dance movements must be soft and smooth in order to avoid a stiff and hard impression in an exaggerated deployment (Kohout 2012). The most important factors affecting the load of dance couples in DanceSport are:

- **Duration of dance performance;**
- **Intensity of dance performance load;**
- **Duration of rest period between performances;**
- **Movement around the dancefloor.**

The effective management of endurance training process in DanceSport requires the knowledge of basic load characteristics, factors affecting the load and the physiological characteristics represented by pulse frequency, as well as other physiological variables. Important indicators are oxygen consumption (VO_2), which characterizes the level of aerobic metabolism, and the concentration of lactate in blood, which plays an important role in identifying the anaerobic glycolytic metabolism.

The duration of load (duration of dance performance) is influenced mainly by the following:

- Duration of accompanying music;
- Number of rounds of the competition;
- The format of the competition final.

The number of rounds within a given competition is determined mainly by the number of competing couples. The number of rounds absolved by a given couple also depends on their performance capacity. The highest-performing couples are usually deployed in the higher rounds (usually the second one), while

weaker couples usually do not reach the higher rounds and have to do the redance round. The redance and the deployment of the highest-performing couples of the competition are pre-determined. The format of the final round applied in the given competition is also an important factor.

The intensity of the load of the dance couples is affected by:

- **Pace of the dance;**
- **Choreography;**
- **Character of the dance;**
- **Free space on the floor during the dance.**

The pace is set by the competition rules and is determined by the number of beats per minute (bpm) set by a metronome. An exact interval is set for each dance. The dance choreography is reflected in the dancers' load by some dance figures being more demanding in terms of energy usage than others.

The load is also impacted by the composition of the choreography, which consists of faster and slower step sequences, and by the character of the dance. It is decisive whether the choreography contains faster or slower movements, whether jumps are included in the choreography or whether it consists primarily of easier steps.

Furthermore, the free space available on the floor also strongly influences the load intensity. If the dance couple does not have enough space on the dancefloor or has to change their choreography during the performance, the intensity of the load will vary from the situation when the dance couple has enough space or would perform on the dancefloor alone.

The **duration of the rest period** depends on the following factors:

- **Number of dance groups;**
- **Dance group type;**
- **Competition programme;**
- **Participation in the redance;**
- **Format of the competition final.**

The duration of the rest period is usually determined by the number of groups participating in the competition. The number of rounds depends on the total number of competing couples and the size of the dancefloor, which must provide at least the prescribed minimum space for the presentation of the performance. If the dance couple performs all five dances of the given dance group, the duration of the rest period is practically constant. If the given couple performs in various groups, the drawing of the couples sets the duration of the rest period for each group. Breaks / rest periods between the individual rounds are set for 15 minutes for the highest performance classes and top performing couples, extended for 20 minutes at WDSF competitions. They are, however, often prolonged, either due to the collisions of the programmes of various competitions during the day, or due to the inclusion of the last rounds of the competition in the evening programme (gala).

DanceSport competitions are also a cultural and social event, it is therefore not unusual for the organizers to include performances of various artists in the competition rounds. The duration of the rest periods also depends on the possible participation of the dancers in the redance, if it is included in the competition. The format of the competition final also has a major impact on the duration of the rest periods. The original format sets the same duration for all dance couples, while the duration of the rest periods are different in the new format, due to drawing the order of the solo dances.

Movement around the dancefloor differs for Standard and Latin American dances. Latin American dances are dominated by a plastic, isolated movement of the whole body; in Standard dances, the dance couple must maintain a tight dance hold within the movement of the whole body. The common balance of the couple requires a static stabilization of multiple muscle groups of the arms and torso (Krämer et al. 2000). Considering the movement of the couple on the dancefloor, dances can be divided into:

- **Progressive;**
- **Stationary.**

In progressive dances, the dance couple moves in the direction of the dance (counterclockwise) along the perimeter of the dancefloor. All Standard dances are progressive, while Samba and Paso Doble are the two progressive Latin American dances. Cha Cha, Rumba and Jive are listed among the stationary dances since they do not require a significant trajectory of movement. Rebula (2011) characterized individual dances by the length of the trajectory that the three Slovenian dance couples who were members of the Over-19 representative team passes during the same time duration (90 seconds). The difference between the progressive and stationary dances is more than double on average, while almost quadruple when comparing Viennese Waltz and Rumba. Even within the group of progressive dances, we can observe significant differences caused by the different form of movement of Standard and Latin American dances.

- | | |
|--------------------------|---------------------|
| - Waltz 109 (m) | - Samba 76 (m) |
| - Tango 109 (m) | - Cha cha 57 (m) |
| - Viennese waltz 163 (m) | - Rumba 45 (m) |
| - Foxtrot 106 (m) | - Paso doble 74 (m) |
| - Quickstep 145 (m) | - Jive 59 (m) |

5 PHYSIOLOGICAL ASPECTS IN DANCESPORT

Information concerning the functional capacity of high-performance dancers as well as their energy requirements in specific competition conditions is the basis for the planning of the training process. This information also indicates the current load and performance of dancers. The intensity of the movement of a couple during a competition is high. Since it does not decrease substantially, it must be maintained for the entire period of the competition. It is demanding in terms of the aerobic capacity of the dancers, who must be systematically trained for high-intensity movement. The level of aerobic endurance determines the volume of training load in the sports training of DanceSport couples, as well as the quality of performing five Latin American and five Standard dances in challenging competitive rounds lasting for several hours, where long-term endurance becomes crucial. Short-term endurance becomes crucial in the final round, when the couples perform all five dances in short succession with minimal rest. Since contemporary competitive DanceSport performance is characterized mainly by dynamic movement with rapid changes in direction (Štiavnický 2004; Chren 2005), short-term endurance is applied most frequently, also due to the duration of individual dances (1.5 – 2 minutes). The most significant feature of short-term endurance is the predominantly anaerobic release of energy caused by the activation of the lactate system.

DanceSport is characterized by an intermittent type of physical activity during which explosive sequences alternate with slow ones. The dancers should be precise and have special dance skills founded on a solid aerobic basis. Training should result in greater resistance to high blood lactate concentration, which adversely affects balance, posture and movement coordination (Bria et al. 2011).

The following chapter focuses on aspects that significantly affect physiological load in DanceSport. The basic aspects of the physiological load in DanceSport are heart rate, oxygen consumption, and blood lactate concentration.

Heart rate (pulse frequency) is a representative measure of assessing the load of the circulation system. The heart rate responds very quickly to changes of the body, especially the muscles, during load while responding most sensitively to increased intensity and resistance. The heart rate is therefore a reliable factor in assessing load intensity. However, it is not possible to assess the level of the metabolism based solely on the heart rate, since it does not adequately reflect its current state (Neumann et al. 2005). Therefore, measuring the heart rate is usually not sufficient for planning effective endurance training.

Maximum oxygen consumption (VO₂max) is an indicator that characterizes the level of aerobic metabolism. It is a vital indicator of regenerative abilities in intermittent activities characterized by a large accumulation of oxygen debt, especially when rest periods last approximately 90 seconds or more. If the rest period is shorter (30 seconds or less), other factors become vital and the importance of VO₂max decreases (Gasgruber and Cacek 2008). While ballroom dancing is considered a leisure time activity, DanceSport is a real sport also in terms of maximum oxygen consumption. Faina et al. (2005) compares VO₂max values in various sports. For men, cross-country skiing is ranked first with the highest oxygen consumption, followed by cycling, marathon running and skating. DanceSport placed next, followed by football, tennis, volleyball and other sports. For women, DanceSport is found in the chart after cross-country skiing, cycling and marathon running but before skating, football and softball. Bria et al. (2011) listed DanceSport right after various types of endurance running, followed by sports such as swimming, football, gymnastics and volleyball. VO₂max plays an important role among intermittent activities that DanceSport belongs to.

Blood lactate concentration is another important indicator since it enables the detection of the activation of the anaerobic (glycolytic) metabolism which plays a crucial role in short-term and speed endurance. Lactate measurement currently has a stable position within performance sports and is the second most frequently monitored parameter after heart rate.

Blood lactate concentration reflects the extent of the anaerobic energy metabolism under both maximal and submaximal load while also providing information about the load intensity and its course. Little attention has been paid to research concerning the physiological load of dancers in DanceSport and there are only a few scientific studies that document concrete results of monitoring load intensity and its objectification. One of the first researches focusing on the measurement of pulse frequency during a simulated final round in Standard and Latin American dances was conducted by Blanksby and Reidy (1988). The research involved ten A – M top performance class couples who simulated a final round in both Standard and Latin American dances. The measurement of the simulated round was preceded by a functional test on a treadmill graded until the maximum was achieved. Blanksby and Reidy (1988) also noted the pulse frequency and oxygen consumption (VO_2) during the test in a laboratory. Linear regression was applied to process the experimental dependence of these two variables. Therefore, the corresponding oxygen consumption could also be assigned to the measured pulse frequency during the simulated dances, even though it was not directly measured in the simulation. A break time of 15 to 20 seconds was set between the individual dances of the simulated round. One dance lasted for 90 seconds and the Latin final was held 30 minutes after the Standard one. For measurement purposes, an individual Sieman wireless kit with a Telecust 36-E1 Six-Channel Receiver for Men and a Sieman wireless kit with a with Telecust 36-EI2 Six-Channel for Women was used. The wireless systems were set to different frequencies and connected with individual ECG recorders which were used for both partners of each couple. Table 1 shows the average heart rate values at rest and under maximum load on the treadmill.

Table 1 Average heart rate (HR) values at rest and under maximum load on a treadmill

| | Men (n=10) | Women (n=10) |
|-------------------------|-------------------|---------------------|
| Rest HR (bpm) | 55.0 ± 6.0 | 63.0 ± 4.0 |
| Maximum HR (bpm) | 197.0 ± 6.0 | 195.0 ± 10.0 |

The average heart rate measured during the individual Standard dances is presented in Table 2. Values are given in absolute beats per minute as well as the relative percentage of the maximum heart rate.

Table 2 Average values of the maximum heart rate (HR) in Standard dances (STD)

| | Men (n=10) | | Women (n=10) | |
|-----------------------|-------------------|---------------|---------------------|---------------|
| | HR (bpm) | HR (%max.) | HR (bpm) | HR (%max.) |
| Waltz | 153 ± 6 | 78 | 158 ± 11 | 81 |
| Tango | 169 ± 7 | 86 | 171 ± 11 | 88 |
| Viennese Waltz | 181 ± 9 | 92 | 185 ± 9 | 95 |
| Foxtrot | 168 ± 8 | 85 | 171 ± 11 | 88 |
| Quickstep | 178 ± 8 | 90 | 182 ± 9 | 93 |
| STD average | 170 | 86 ± 5 | 173 | 88 ± 6 |

Table 3 presents the average heart rate measured during the individual Latin American dances.

Table 3 Average values of maximum heart rate (HR) in Latin American dances (LAT)

| | Men (n=10) | | Women (n=10) | |
|--------------------|-------------------|---------------|---------------------|---------------|
| | HR (bpm) | HR (%max.) | HR (bpm) | HR (%max.) |
| Samba | 158 ± 6 | 80 | 170 ± 8 | 87 |
| Cha Cha | 179 ± 9 | 89 | 182 ± 12 | 93 |
| Rumba | 158 ± 9 | 80 | 168 ± 12 | 86 |
| Paso Doble | 172 ± 9 | 87 | 181 ± 11 | 93 |
| Jive | 178 ± 10 | 90 | 186 ± 11 | 95 |
| LAT average | 168 | 85 ± 7 | 177 | 91 ± 6 |

Table 4 shows the average oxygen consumption calculated from the heart rate in Standard and Latin American dances (in ml of oxygen per 1 kg of the weight of the dancer and minute of dance) and the relative percentage of the maximum oxygen consumption.

Table 4 Average oxygen consumption in Standard and Latin American dances in absolute numbers and relative percentage of the maximum oxygen consumption

| | Men (n=10) | | Women (n=10) | |
|--------------------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|
| | VO ₂ (ml/kg/min) | % VO ₂ max | VO ₂ (ml/kg/min) | % VO ₂ max |
| STD average | 42.8 ± 5.7 | 82.3 ± 8.0 | 34.7 ± 3.8 | 82.8 ± 6.9 |
| LAT average | 42.8 ± 6.9 | 81.9 ± 2.3 | 36.6 ± 4.1 | 85.9 ± 4.0 |
| VO₂max (lab) | 52.5 ± 5.2 | 100 | 42.0 ± 4.6 | 100 |

Significant researches were also conducted by Bria et al. (2011), Dalla Vedova et al. (2006) and Faina et al. (2005). One of these researches was focused on the observation of twelve dance couples of the highest A – M performance classes; six couples performing Standard dances and six couples performing Latin American dances. The testing was performed in a laboratory in Italy, simulating the final round in both dance groups. Anthropometric measurements of dancers had been taken in the laboratory before they became subjected to an aerobic maximum load exercise gradual test on a Cosmos HP Germany treadmill. Measurements of pulmonary ventilation, oxygen consumption, exhaled carbon dioxide and heart rate were conducted using a K4-b2 Cosmed Italy device. The experiment also measured the concentration of blood lactate using samples taken from the auricular using the EBIO Plus (Eppendorf, Germany) device. Blood samples were collected during post-load rest in the third and sixth minute of rest. The K4-b2 and EBIO Plus devices were used for measurements conducted outside the laboratory. The measurements of the heart rate (HR), oxygen consumption (VO₂) and lactate concentration were conducted during the simulation of the final round. The heart rate and oxygen consumption were measured continuously, and lactate concentration was measured during the rest periods. The dancers performed five dances from each group, each of them lasting 100 seconds with a 15 – 20 second break between them. The average heart rate values in the individual dances as well as in the dance groups are presented in Tables 5 and 6.

Table 5 Average heart rate (HR) values in Standard dances (STD)

| | Men (n=6) | | Women (n=6) | |
|-----------------------|--------------------|-------------------|---------------------|-------------------|
| | HR (bpm) | HR (% max) | HR (bpm) | HR (% max.) |
| Waltz | 157.7 ± 7.5 | 81.9 ± 6.1 | 161.4 ± 12.8 | 81.9 ± 5.9 |
| Tango | 173.3 ± 7.0 | 89.9 ± 2.9 | 175.2 ± 13.8 | 88.4 ± 6.6 |
| Viennese Waltz | 180.6 ± 8.1 | 93.6 ± 2.5 | 183.1 ± 10.4 | 92.9 ± 5.3 |
| Foxtrot | 179.0 ± 10.9 | 92.8 ± 3.6 | 182.7 ± 10.5 | 92.7 ± 4.0 |
| Quickstep | 188.0 ± 9.0 | 97.4 ± 2.4 | 193.7 ± 8.2 | 92.5 ± 4.0 |
| STD average | 175.7 ± 8.5 | 91.1 ± 3.5 | 179.2 ± 11.2 | 90.7 ± 5.2 |

Table 6 Average heart rate (HR) values in Latin American dances (LAT)

| | Men (n=6) | | Women (n=6) | |
|--------------------|--------------------|-------------------|--------------------|-------------------|
| | HR (bpm) | HR (% max) | HR (bpm) | HR (% max) |
| Samba | 176.3 ± 14 | 90.5 ± 5.3 | 176.2 ± 10.0 | 92.2 ± 4.2 |
| Cha Cha | 184.6 ± 11 | 94.8 ± 2.7 | 182.5 ± 7.4 | 95.6 ± 2.6 |
| Rumba | 180.8 ± 13 | 92.8 ± 4.4 | 178.8 ± 10 | 93.7 ± 3.7 |
| Paso Doble | 187.4 ± 11 | 96.2 ± 3.4 | 186.7 ± 8.0 | 97.8 ± 3.2 |
| Jive | 188.3 ± 8.0 | 96.7 ± 3.3 | 187.7 ± 7.0 | 98.3 ± 2.8 |
| LAT average | 183.5 ± 1.5 | 94.2 ± 1.5 | 182.4 ± 1.5 | 95.5 ± 1.5 |

The authors of the research further elaborated on oxygen consumption assessed by direct measurement (Tables 7 and 8), as opposed to the research of Blanksby and Reidy (1988) in which oxygen consumption was calculated based on heart rate.

Table 7 Average oxygen consumption (VO₂) during the performance of Standard dances (STD)

| | Men (n=10) | | Women (n=10) | |
|--------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|
| | VO ₂ (ml/kg/min) | % VO ₂ max | VO ₂ (ml/kg/min) | % VO ₂ max |
| Waltz | 39.8 ± 7.4 | 66.1 ± 14.3 | 30.2 ± 8.6 | 56.3 ± 14.6 |
| Tango | 45.8 ± 6.3 | 75.6 ± 10.9 | 36.8 ± 9.6 | 68.8 ± 17.4 |
| Viennese W. | 49.3 ± 5.2 | 81.3 ± 8.1 | 40.9 ± 8.6 | 76.3 ± 14.1 |
| Foxtrot | 45.2 ± 5.4 | 74.6 ± 9.4 | 38.9 ± 7.7 | 72.6 ± 12.0 |
| Quickstep | 49.1 ± 5.8 | 81.1 ± 10.2 | 43.0 ± 8.0 | 80.1 ± 10.7 |
| STD average | 45.8 ± 6.0 | 75.7 ± 10.6 | 38.0 ± 8.5 | 70.8 ± 13.8 |

Table 8 Average oxygen consumption (VO₂) during the performance of Latin American dances (LAT)

| | Men (n=10) | | Women (n=10) | |
|--------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|
| | VO ₂ (ml/kg/min) | % VO ₂ max | VO ₂ (ml/kg/min) | % VO ₂ max |
| Samba | 47.5 ± 10.0 | 80.2 ± 22 | 38.4 ± 8.0 | 74.0 ± 16 |
| Cha Cha | 50.7 ± 6.6 | 85.6 ± 14 | 43.3 ± 8.0 | 83.5 ± 16 |
| Rumba | 46.6 ± 7.0 | 78.7 ± 11 | 38.9 ± 6.5 | 75.9 ± 13 |
| Paso Doble | 48.9 ± 9.1 | 82.6 ± 14 | 43.4 ± 7.1 | 82.9 ± 12 |
| Jive | 47.9 ± 9.5 | 80.9 ± 14 | 42.7 ± 8.0 | 81.6 ± 12 |
| LAT average | 47.8 ± 7.2 | 80.7 ± 11 | 39.7 ± 8.0 | 75.9 ± 13 |

Table 9 presents a comparison of the average maximum oxygen consumption and lactate concentration for both men and women. The average maximums of the individual Latin American and Standard dances are listed.

Table 9 Maximum oxygen consumption and lactate concentration values for men and women in Latin American and Standard dances

| | Men (n=6) | | Women (n=6) | |
|---|------------|------------|-------------|------------|
| | STD | LAT | STD | LAT |
| VO_{2max} (ml.kg⁻¹ .min⁻¹) | 60.9 ± 6.0 | 59.2 ± 7.0 | 53.7 ± 5.0 | 52.3 ± 5.0 |
| Lactate max. value (mmol.l⁻¹) | 8.5 ± 2.3 | 8.7 ± 2.5 | 8.3 ± 3.9 | 7.0 ± 2.9 |

Dalla Vedova et al. (2006) present a comparison of the time courses of the heart rate and oxygen consumption for the individual dances, differentiated by the sex of the dancers. The authors of this study found that the assumption of a linear dependence between the heart rate and oxygen consumption as stated by Blanksby and Reidy (1988) is not overly justified. This finding is also supported by Bria et al. (2011) who found no correlation between the two variables whatsoever. Blanksby and Reidy (1988) probably had no means to conduct a continuous measurement of oxygen consumption in the late 1980's and while researchers to have such means available nowadays, such researches are practically non-existent due to their high cost.

Dalla Vedova et al. (2006) also explored the relationship between oxygen consumption and the performance of dance couples. The research has clearly shown that the highest performance class M couples had higher oxygen consumption than performance class A dancers (in Italy). Bria et al. (2011) states that Viennese Waltz and Quickstep are the highest oxygen consumption dances among Standard dances: for some dancers up to 95% of VO_{2max}. Waltz, Tango, Viennese Waltz and Quickstep are significantly affected by glycolytic metabolism. In the case of Waltz, Bria et al. (2011) were unable to determine whether this influence was caused by the high demands of the dance or a later activation of the aerobic metabolism. In Foxtrot, which is less energy demanding, the aerobic energy release plays a decisive role, since lactate concentration decreases significantly during this dance. On the other hand, during Quickstep, which is highly demanding in terms of energy, the heart rate, oxygen consumption and lactate concentration increase.

Bria et al. (2011) characterizes Latin American dances as dances requiring a high involvement of the cardiovascular system and aerobic metabolism. Anaerobic metabolism is highly stimulated especially in Samba and Cha Cha. The delayed activation of the aerobic metabolism contributes to the increase in lactate concentration after Samba, in addition to its energy intensity. After finishing Rumba, the third dance, blood lactate concentration gradually decreases. During the last dance, Jive, the lactate concentration is rising again, especially among men. A gradual decrease proves the activation of aerobic metabolism while the rise of blood lactate concentration among men performing Jive indicates a higher activation of the glycolytic metabolism. Despite the fact that neither Latin dance can be considered energetically less demanding than the others, as is the case of Foxtrot among Standard dances, dancers commonly consider Rumba less exhausting. Several authors in Slovakia have also focused on monitoring heart rate and blood lactate concentration.

Štrbová (2002) examined body load by measuring heart rate using a sport tester in a simulated four-round competition of five dance couples of performance classes B-A-S in Latin American and Standard dances. She evaluated the heart rate after each dance, as well as during the rest periods between the individual dances and between the rounds. The breaks between the rounds were set at the lowest limit of 10 minutes. In the first round the break between the dances was set at 4 minutes, in the second one 3 minutes and 30 seconds, in the third one 1 minute and 40 seconds and in the last round 1 minute. The duration of the recordings of the individual dances was set by the Competition Rules of the Slovak DanceSport Federation. The outcomes of the measurements in Standard dances are shown in Table 10, where the average maximum heart rates reached in each dance in the individual rounds by men and women combined, as well as values measured during the rest interval after each dance (Table 12). The results of the measurements taken in Latin American dances are documented in Tables 11 and 13.

Table 10 Average maximum heart rate values during individual rounds of a simulated competition in Standard dances among men and women

| HR (bpm) | Waltz | Tango | Viennese Waltz | Foxtrot | Quickstep |
|-----------------------------|------------|------------|----------------|------------|------------|
| 1st round | 178 | 184 | 189 | 185 | 193 |
| 1st round | 185 | 191 | 192 | 189 | 196 |
| 3rd round | 185 | 192 | 192 | 191 | 196 |
| 4th round | 184 | 191 | 194 | 193 | 198 |
| average | 183 | 190 | 192 | 190 | 196 |

Table 11 Average maximum heart rate values during individual rounds of a simulated competition in Latin American dances among men and women

| HR (bpm) | Samba | Cha-Cha | Rumba | Paso Doble | Jive |
|-----------------------------|------------|------------|------------|------------|------------|
| 1st round | 185 | 188 | 184 | 188 | 191 |
| 2nd round | 190 | 191 | 182 | 188 | 194 |
| 3rd round | 189 | 190 | 187 | 192 | 196 |
| 4th round | 189 | 191 | 189 | 194 | 196 |
| average | 188 | 190 | 186 | 191 | 194 |

Table 12 Average heart rate values of during rest periods after individual Standard dances

| HR (bpm) | After Waltz | After Tango | After V. Waltz | After Foxtro | After Quick |
|-----------------------------|----------------|----------------|-------------------|-----------------|----------------|
| 1st round | 91 | 97 | 101 | 104 | 95 |
| 2nd round | 106 | 110 | 113 | 107 | 98 |
| 3rd round | 117 | 120 | 118 | 124 | 101 |
| 4th round | 122 | 140 | 145 | 144 | 109 |
| average | 109 | 117 | 119 | 120 | 101 |

Table 13 Average heart rate values of during rest periods after individual Latin American dances

| HR (bpm) | After Samba | After Cha-Cha | After Rumba | After Paso Doble | After Jive |
|-----------------------------|----------------|------------------|----------------|---------------------|---------------|
| 1st round | 105 | 107 | 112 | 110 | 104 |
| 2nd round | 116 | 125 | 121 | 120 | 111 |
| 3rd round | 128 | 125 | 125 | 132 | 116 |
| 4th round | 156 | 162 | 158 | 165 | 122 |
| average | 126 | 130 | 129 | 132 | 113 |

Based on the results of the heart rate measurement, the author determined the order of difficulty of the examined dances from the most demanding to the least demanding. The order in the Standard dances was the following: Quickstep, Viennese Waltz, Tango, Waltz and Foxtrot. She determined the following order of Latin American dances: Jive, Paso Doble, Samba, Cha Cha and Rumba. The outcomes of this research further show that nearly sufficient regeneration of the dancers' physical capabilities occurs during the rest periods between dances and rounds from the preliminary rounds to the semi-finals. However, the short rest period of only 1 minute allowed in the final round was not sufficient to recover. Insufficient regeneration already occurred in the semi-final round of the simulated competition among some respondents, especially girls.

In my opinion, the inability of the organism to regenerate adequately in the breaks between the individual dances in competitions becomes reflected as fatigue, reduced concentration, disruption of the couple's balance, errors in dance technique. All of these factors lead to an overall psychological lability, while they are also a manifestation of a lower level of fitness.

Heart rate in a direct competition during dance performance has first been objectified by Chren (2005) during international competitions in Latin American and Standard dances. The research sample consisted of two couples performing Standard dances and two couples performing Latin American dances. All four dance couples were members of the representation of the Slovak Republic in the Main age category and performance class S (proficient international class). The heart rate was measured by a sport tester and was performed only among men due to aesthetic reasons. The measurements were conducted during the competition, in the presence of an audience, adjudicators, coaches and a number of other factors that had a significant impact on the performance of the dancers. The obtained data showed that the heart rate values in Standard dances were less than 180 bpm only in Waltz and Foxtrot. The average values while performing Tango and Viennese Waltz were 182 – 183 bpm. The highest values were measured during Quickstep – the average of 188.8 bpm, while even 202 bpm was measured in one case. After a period of rest, the slowest return of the heart rate frequency was documented during the Quickstep performance.

The values still remained high – 157.3 bpm. As for Waltz, which is the least physically demanding; values during the rest period were at a substantially lower level of 110 bpm.

Table 14 Average heart rate in Standard dances during competition

| Waltz | Tango | Viennese Waltz | Foxtrot | Quickstep |
|--------------|--------------|-----------------------|----------------|------------------|
| 173.6 | 183 | 182 | 179 | 188 |

The author also stated high physiological demands in Latin American dances. The values presented in Table 15 were significantly higher than in Standard dances, averaging between 193.5 and 200.5 bpm. The highest individual values were reached by individual dancers in Cha Cha and Jive, 208 bpm and 206 bpm respectively. The lowest individual value was measured in Rumba –189 bpm, which is the only value under 190 bpm in all five Latin American dances.

Table 15 Average heart rate in Latin American dances during competition

| Samba | Cha Cha | Rumba | Paso Doble | Jive |
|--------------|----------------|--------------|-------------------|-------------|
| 197 | 200.5 | 193.5 | 197.8 | 199 |

The outcomes of the research show that the dancers in all Latin American dances reached heart rate values over 190 bpm, proving that their dance performance was in the anaerobic zone.

Chren and Špánik (2010) were also the first ones in Slovakia to record the heart rates of both men and women during a competition. Twelve dancers – three Latin and three Standard couples – were observed during the Slovak Cup held in Poprad on 20th March 2010. The couples were listed in performance class S (proficient international class) and were representing Slovakia in Standard and Latin American dances. The average age of the dancers was 22.8 ± 2.9 . The body height of the researched group was 174.8 ± 10.23 cm (5 ft 9 in \pm 4 in) among men and 162.2 ± 4.88 cm (5 ft 3 in \pm 1.9 in) among women; body weight men: 68.83 ± 3.71 kg (152 \pm 1 lbs), women 50.17 ± 2.79 kg (110.6 \pm 6.15 lbs);

BMI men 22.65 ± 2.2 , women 19.08 ± 0.8 . Measurements were conducted during a competition, in the presence of the audience, adjudicators and coaches. Blood lactate samples were obtained by taking blood from the auricle. All sampling was conducted between the third and fifth minute after the end of the semi-final and final rounds. The analysis was performed on a Biosen C-line (Germany) device from each blood sample of 20 μ l. The heart rate of the dancers was documented by a Sunto Training Manager device which allowed monitoring heart rate during all of the competition. The values at the beginning and end of the individual dances were measured in the semi-final and final rounds, with special focus on the final, when the dancers perform five dances in succession with a rest period of only 1 minute between the individual dances. The research project, including the formation of the research group, was implemented with a great support and assistance from the Slovak DanceSport Federation.

The heart rate of the observed couples was monitored continuously from the warm-up until the end of the competition. The authors of the research were interested mainly in the heart rate values at the beginning and at the end of the performance in each individual dance. With an average performance length of 1 minute 39 seconds in Standard dances, the following values were measured: average heart rate at the beginning was 148 bpm among men and 157 bpm among women; average heart rate at the beginning of the performance was 188 bpm among men and 192 bpm among women. The given values are an average for the entire four-round Slovak Cup competition.

The authors paid special attention to the evaluation of the semi-final and final rounds, since the dancers perform five dances in succession with a rest period of only 1 minute between the individual dances in the final. The evaluation showed that the measurements taken during the finals were nearly identical to the ones taken during the previous parts of the competition. Men started the performances with an average heart rate of 145 bpm and finished at 189 bpm. Women begun with a heart rate of 154 bpm, lower than in any other part of the competition and finished with 192 bpm. The measurements of the final have shown that during the 1-minute rest period the heart rate of the dancers decreased in average to 162 – 165 bpm among both men and women, while their

heart rates reached 191 bpm (men) and 193 bpm (women) by the end of each dance.

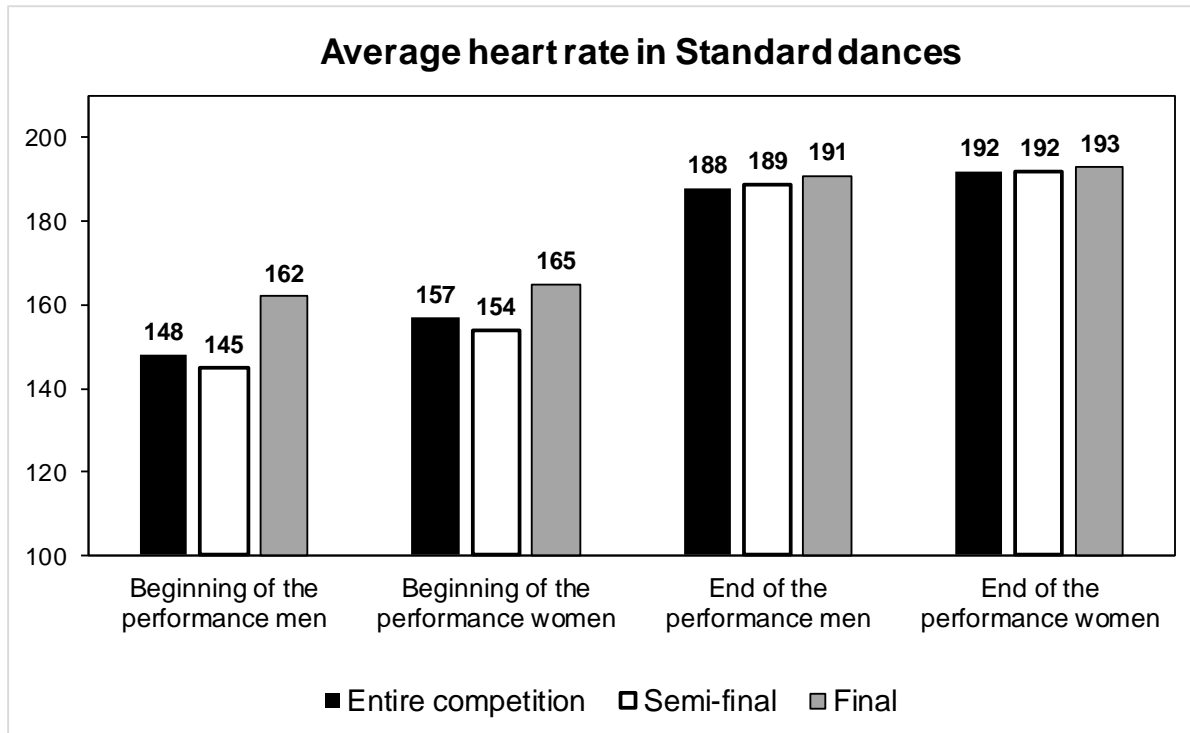


Figure 1 Average heart rate of men and women at the beginning and at the end of the performance of individual Standard dances

Blood samples were taken from the couples after both the semi-final and final rounds. Sample "Sem." was tested for the blood lactate concentration after the semi-final and sample "Final" was used for the same purpose after the final (Table 16). Average blood lactate concentration during Standard dance performances was 7.83 mmol/l^{-1} (both sexes): 8.23 mmol/l^{-1} (men) and 7.43 mmol/l^{-1} (women). Values measured among women were lower than the average; higher values of blood lactate concentration were measured during the semi-final than during the final.

Table 16 Blood lactate concentration values during the semi-final and final in Standard dances (men and women)

| Men | mmol/l⁻¹ | Women | mmol/l⁻¹ |
|---------------|----------------------------|---------------|----------------------------|
| 1. semi-final | 11.20 | 1. semi-final | 4.29 |
| 1. final | 6.87 | 1. final | 4.87 |
| 2. semi-final | 7.70 | 2. semi-final | 9.18 |
| 2. final | 6.06 | 2. final | 6.63 |
| 3. semi-final | 9.69 | 3. semi-final | 12.39 |
| 3. final | 7.85 | 3. final | 7.24 |

The average length of a performance in the Latin category was 1 minute and 35 seconds. Chren and Špánik (2010) focused on the same criteria as in Standard dances.

The average heart rate values measured at the beginning of the individual performances were 155 bpm (men) and 154 bpm (women; Figure 2) for the entire competition. The average heart rate values measured at the end of the individual performances were 190 bpm (men) and 189 bpm (women) for the entire competition.

The semi-final and final rounds were examined individually and in more depth. Men started the semi-final with an average heart rate of 150 bpm and finished with 190 bpm. The values measured among women were lower: 149 bpm at the beginning and 181 bpm at the end.

Higher values were only observed in the final. Men began the individual dances in the final with an average heart rate of 168 bpm and finished with 190 bpm, while women began with 165 bpm and finished with 189 bpm on average (Figure 2).

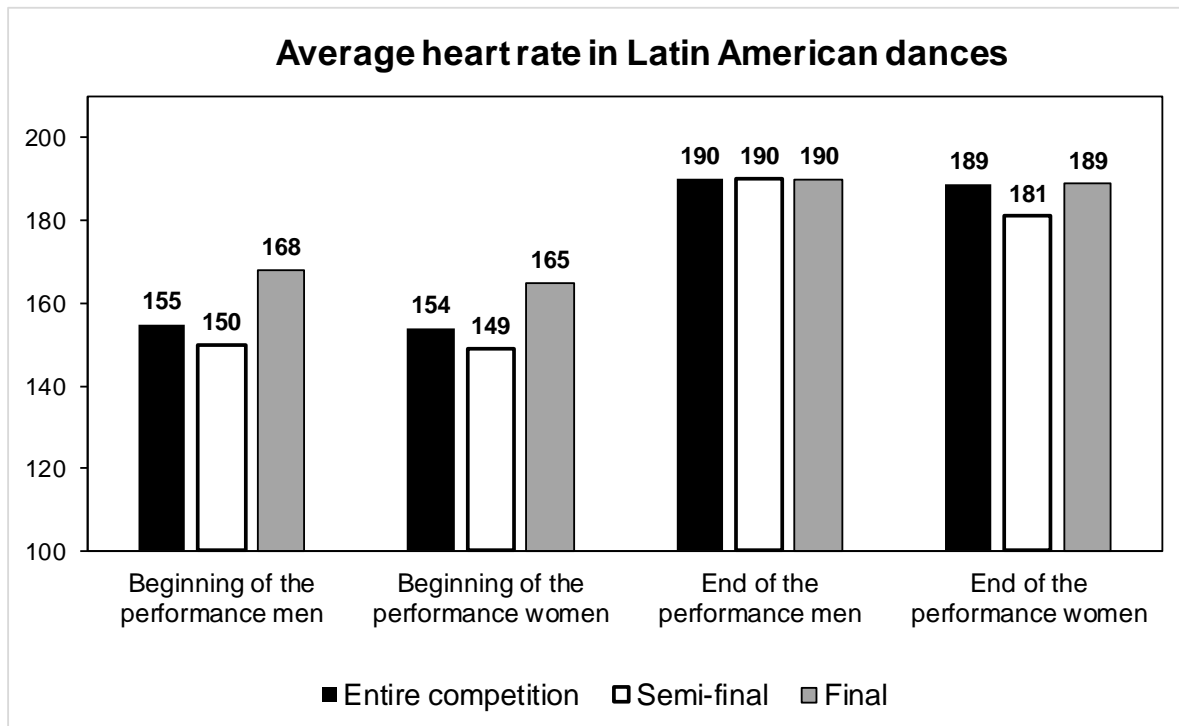


Figure 2 Average heart rate of men and women at the beginning and at the end of the performance of individual Latin American dances

Similarly to the procedure conducted during the Standard dance competition, two blood samples were taken from the dancers to examine the blood lactate concentration: one after the semi-final and one after the final. The average value for both sexes and the entire competition was $11.95 \text{ mmol/l}^{-1}$; $11.32 \text{ mmol/l}^{-1}$ for men and higher, $12.57 \text{ mmol/l}^{-1}$ for women. Blood lactate concentration values were higher in the semi-final than in the final; similarly to the results obtained when examining Standard dances (Table 17).

Table 17 Blood lactate concentration values during the semi-final and final in Latin American dances (men and women)

| Men | mmol/l⁻¹ | Women | mmol/l⁻¹ |
|---------------|----------------------------|---------------|----------------------------|
| 1. semi-final | 15.30 | 1. semi-final | 9.55 |
| 1. final | 12.34 | 1. final | 8.34 |
| 2. semi-final | 13.10 | 2. semi-final | 18.50 |
| 2. final | 9.19 | 2. final | 15.12 |
| 3. semi-final | 8.96 | 3. semi-final | 12.34 |
| 3. final | 9.05 | 3. final | 11.58 |

Table 18 presents the average blood lactate concentration values after both Standard and Latin semi-finals and finals.

Table 18 Average blood lactate concentration values after Standard (STD) and Latin (LAT) semi-finals and finals, both sexes

| | Men (n=3) mmol/l⁻¹ | | Women (n=3) mmol/l⁻¹ | |
|-------------------|--------------------------------------|-------|--|-------|
| | STD | LAT | STD | LAT |
| Semi-final | 9.53 | 12.45 | 8.63 | 13.45 |
| Final | 6.92 | 10.20 | 6.25 | 11.71 |

The same research was conducted by Chren, Špánik and Kyselovičová (2010) during another Slovak Cup competition held on 1st April 2010 in Ružomberok.

The outcomes of their researches correspond with the outcomes of the research of Jensen et al. (2002) which examined two dance couples during a simulated competition in Denmark. The heart rate values during all performances varied between 180 and 200 bpm. Jensen et al. (2002) point at different blood lactate concentration levels during Standard and Latin American dance performances, namely 6.5 ± 1.1 mmol/l⁻¹ and 9.7 ± 2.1 mmol/l⁻¹ respectively and 10.5 mmol/l⁻¹ after five individual performances in the final.

The heart rate analysis confirms that muscle function has a significant effect on heart rate. If residual fatigue persists, a higher pulse rate is required to achieve the same dance performance compared to the state preceded by a rest period. Muscle fatigue may also be reflected in a lower blood lactate concentration, which is associated with a higher heart rate and is a manifestation of insufficient glycolysis. We have observed that heart rate and blood lactate concentration values have increased considerably in both Standard and Latin American dances since the first researches were conducted. This fact confirms that dancers have recently been exposed to a much higher load than in the past.

DanceSport is a demanding sport that requires a high level of both coordination skills and dance skills. Increasing heart rate and maximum oxygen consumption prove that performance load during competitions has increased significantly in recent years. Therefore, DanceSport training requires much more sophisticated planning than in the past, focusing on special dance skills as well as endurance.

6 THE STRUCTURE OF SPORT PERFORMANCE IN DANCESPORT

The structure of sports performance is understood as a purposeful arrangement of factors and relationships among them. These strictly defined relationships are an internal condition for its functionality and effectiveness, resulting in the athlete's bio-psychomotoric ability to present a maximum sporting performance in the competition. Sports performance is effective and flawless acts of a sportsperson which are a long-term intentional adaptation of their body to the specific requirements of the sports industry (Moravec 2007). Defining the structure of sports performance offers the opportunity to quantify the mutual relationships of the factors influencing sports performance at the same time at different levels. It is possible to objectively assess the significance of such factors in terms of sport performance by applying the combination of empirical data with relevant methods such as factor analysis, multiple correlations and regression analysis. This approach furthermore provides versatile, concrete, quantified and relatively detailed information about sport performance, thus entering the sport training system as an optimization factor (Kampmiller 1980). Kampmiller distinguishes among factors of various levels. Specific factors are found at the first level while general factors are at the lowest level. He distinguishes two types of connection between the factors and sports performance: direct, which directly influence the sports performance, and indirect, which make an impact on the sports performance by affecting a direct influence factor of a higher hierarchical position. Thus, the individual factors limiting sport performance overlap and are mutually conditional. The relevance of individual performance factors varies by individual disciplines. Šimonek, Zrubák et al. (2003) divide sports performance into three categories:

- First level factors, which directly limit sports performance in a given discipline and cannot be compensated.
- Second level factors, which limit sports performance in a given discipline but can be partially compensated.

- Third level factors, which are not a direct condition of sports performance in a given discipline but create necessary preconditions for the development of the first two factors. The plan of the development of motor skills, which play a decisive role in sport performance, is based on the knowledge of the factors of the first, second and third order in the given sport.

Paulis (2002) analyzed and formulated and selected movement abilities considered by the experts as the most relevant in DanceSport (Table 19). The research group consisted of experts and DanceSport coaches with several years of experience. When entering individual movement abilities into the questionnaire, Paulis (2002) took into consideration a wide range of fitness and coordination skills and their combinations largely found in DanceSport, such as rotation speed, dance endurance in speed and others.

When considering somatic factors, DanceSport needs to be viewed as an “aesthetic” sport. It is thus necessary to take into account the symmetry of the figures of the athletes, both their partial attributes and as a whole. As for height, a medium figure is the most preferable in DanceSport. A very short or very tall figure is a disadvantage in DanceSport, both in terms of aesthetics and functionality. From the motoric point of view, the ideal types are mesomorphic ectomorph and ectomorphic mesomorph. A high degree of endomorphism is an aesthetic impediment.

Table 19 The classification of motor skills in DanceSport according to the factors of the first, second and third level

| | | |
|----------------------|---|---|
| Third level factors | 26 25 24 23 22 21 20 | upper limb strength maximum force perseverance in strength static strength relative strength explosive strength of the whole body general endurance |
| Second level factors | 19 18 17 16 15 14 13 12 11 10 9 | lower limb explosive strength reaction rate acceleration speed overall readiness special endurance cyclic speed frequency speed action speed space orientation couple balance static balance |
| First level factors | 8 7 6 5 4 3 2 1 | rotation speed dynamic balance dance endurance in speed flexibility of ligaments, muscles and tendons general flexibility movement coordination the ability to conduct consecutive moves rhythmic capability |

Table 20 Division of the relevance of motor skills in DanceSport

| | |
|---|---|
| 2 | maximum force |
| 2 | perseverance in strength |
| 2 | upper limb strength |
| 2 | relative strength |
| 3 | static strength |
| 3 | musculature explosive strength |
| 3 | general endurance |
| 3 | cyclic speed |
| 4 | frequency speed |
| 4 | lower limb strength |
| 4 | reaction speed |
| 5 | action speed |
| 5 | acceleration speed |
| 5 | special endurance |
| 5 | general readiness |
| 5 | static balance |
| 5 | spatial orientation |
| 6 | rotation speed |
| 6 | flexibility of ligaments, muscles and tendons |
| 6 | dance endurance in speed |
| 6 | couple balance |
| 6 | general flexibility |
| 6 | dynamic balance |
| 6 | rhythmic capability |
| 6 | ability to conduct consecutive moves |
| 6 | movement coordination |

2 – almost insignificant factors; 3 – low-significance factors,

4 – moderate-significance factors, 5 – significant factors, 6 – very significant factors

Kuntzelman (1978) and Derka, Gottschling and Kunz (1995) categorized selected motor skills according to their significance in dance (see Table 21 and Table 22).

Table 21 Categorization of motor skills in dance according to Kuntzelman (1978)

| | |
|--------------|---|
| endurance | 3 |
| strength | 2 |
| flexibility | 3 |
| balance | 2 |
| coordination | 3 |

Table 22 Categorization of motor skills in dance according to Derka, Gottschling and Kunz (1995)

| | |
|-----------------------|---|
| endurance | 2 |
| strength | 1 |
| endurance in strength | 1 |
| coordination | 4 |
| speed | 1 |
| flexibility | 1 |

1 – almost insignificant factors, 2 – low-significance factors, 3 – moderate-significance factors, 4 – significant factors

7 AESTHETICS IN DANCESPORT

The development of some sports disciplines has recently shown features that bring them closer to an art, even though the function and structure of these areas vary. DanceSport is a good example of their overlapping (Chren 2009a), since the accompanying aesthetic phenomena characteristic of the conducted movements can be clearly documented. Certain aesthetic phenomena and activities characteristic of DanceSport tend to grow into art. A suitable example is the creation and presentation of a set of five Standard and five Latin American dances, where the aesthetic or artistic expression comes to the fore. The aesthetic activity in this sport discipline evokes the harmony of rhythmic and economic movement, the beauty of the human body, the costumes and many other factors. The most visual expression of dance couples is the style of clothing and an overall image.

Aesthetics is a scientific discipline focused on the entire wealth of aesthetic values that one finds in their environs which were created in human activity and fixed in art reflecting reality. Aesthetics may thus be described as “leading aesthetic appropriation of reality through man” (Fialová 1982). The term aesthetics is derived from the Greek word “*aisthetikos*” meaning “pertaining to sense perception”. In the course of its development and search for its definition, aesthetics has appeared to be an unusually ramified, while, at the same time, organically coherent area of knowledge. Aesthetics as a reflexive study of beauty in general is divided into research modalities of beauty in a number of aesthetic categories. These values have a vital impact on the creation and constitution of a set of objectively and independently observable entities – works of art. Aesthetics is thus a philosophy as well as a science about art (Brejka 1996). Losev and Šestakov (1984) define aesthetic categories in twelve terms:

- Extent;
- Harmony;
- Catharsis;
- Kalokagathia;

- Beauty, charm;
- Imitation;
- Allegory;
- Taste;
- Ideal;
- Irony;
- Grotesque.

According to these authors, beauty is one of the core categories in aesthetics. The issue of beauty has been intriguing the human mind for millennia and has provoked innumerable passionate debates and controversies in the history of aesthetics, in which the most varied and contradictory concepts meet. Most researchers recognize that beautiful and aesthetic are two separate terms with utterly different meanings.

7.1 AESTHETICS OF MOVEMENT AND EXPRESSION IN DANCESPORT

Movement, as one of the basic manifestations of life, has always been the main point of human attention. Movement to music is an instinctive in response. This instinctive joy turns even greater if a person can respond to music in unison with a partner, such as in DanceSport, rock'n'roll or figure skating (Wainwright 2006).

Watching accelerated recordings of flowering plants, the free flight of birds or the graceful movements of feline beasts and other animals, the observer finds that these movements awaken an aesthetic feeling, a sense of beauty in them. One may find uncountable examples documenting the desire to approach this natural beauty in arts and sports. Muscle work and movement in athletics, gymnastics, dances and other sports performed with the aim of reaching the best possible performance is also a highly aesthetic phenomenon. Personally, I am convinced that every person has a kinaesthetic sense – a sense for aesthetics

in movement. It is based on touch, one of the five main senses. Humans are naturally stimulated by any physical activity that allows them to feel the meaning and kind of the given movement. Therefore, the audience or the judges perceive the movement of the dancer with their own bodies during a dance performance. This phenomenon is allowed by the touch receptors which send a signal to the brain about movement, its speed, its aesthetic and other qualities based on visual perception. The observers are able to breathe and rotate their bodies in accordance with the movement of the dancer, feel their stop in time and recognize the degree of control and release of energy caused by the body of the dancer. The observers are thus stimulated in a kinaesthetic manner: they feel and perceive whatever the dancer feels and perceives.

Dance is an art that creates and performs movement. It is therefore vital for the overall impression that audience perceives the performance too. The process of manipulating the viewer and the process of perception of movement is much deeper when an excellent dancer performs their dance art. The audience is thus invited to feel and perceive the dance aesthetically, which is more than a mere empathy towards the physical activity of another person. This feeling is allowed by human memory, especially the memory of experiences. Dance does not employ words; it rather utilizes means of non-verbal communication such as facial expressions, gestures, kinesics, haptics and proxemics (Hižnayová 2010).

Technical demonstration is an essential aspect of DanceSport in terms of aesthetics. The technical component consists of technical exercises aimed at the development of joint mobility, the elasticity of muscles, proper posture and the enhancement of the range of movement and elasticity of dance expression (Chren 2009b).

Aesthetic principles in DanceSport are the criteria of “goodness – beauty” which the dancer / couple should be led towards. Basic body coordination also includes proper posture and position. Body weight is perpendicular to the dancefloor. This perpendicular line must begin between the feet and the knee, hip and shoulder joints as well as the ear must be aligned with it, creating the axis of the body. The neck line is long, formed by the downward compression of the

shoulders and the upward compression of the vertical body axis. The spot where the centre of gravity of the body is located is essential. It connects the movement of the lower limbs with the upper body and therefore must always be active. An active centre of gravity also allows the dancer to maintain the vertical body axis by pulling the abdominal muscles under the central area diagonally upwards inside the body. The body weight lays on the inner edges of the feet.

After learning the aesthetic standards of the basic position, one may advance to basic coordination. The most basic principles include walking on the toes, leading the foot along the line of the big toe, a tight touch of both feet while walking, knee- and ankle work, the overall positioning of the feet, basic pelvic movement, isolation, rotation, etc.

As for the position of the hands of the dancers, the most elementary aesthetic norm, especially for Latin American dances, are classic hands, gradually accompanied by jazz hands and various gestures.

In conclusion, one might state that the basic aesthetic and coordination standards include the basic technique and the mechanics of the individual dances, as well as the demonstration of the basic figures.

Basic Indicators of Aesthetics in DanceSport

- **Posture** – the way a dancer shapes their skeleton and muscles into a certain form.
- **Basic movement coordination** – the way in which the dancer coordinates the movements of their hands, legs and body; range and flow of movement, grace.
- **Choreography and its beauty** – applying fundamental changes and trick figures, changes of dynamics and space, and their overall mastery.
- **Aesthetics of the expression of dancers** – nonverbal communication, charisma, facial expression, action – reaction, character.
- **Aesthetics of clothing and overall styling** – the image of the dancers.

The performance of the dancer, along with their movement technique, serves as a means of utilizing an artistically truthful and aesthetically compelling expression in the form of an image. Other aspects of movement manifestation, especially its expression, are also communicated through the movement technique.

Expression is the art of manifestation of one's feeling and inner emotional experience of the particular movement as well as their self-identification with it. Both the dancers and the audience experience the beauty of movement when the principle of motion is transferred through this feeling. We believe that expression is the dominant factor completing the aesthetic quality of the whole movement and artistic presentation. Facial expression is an important part of the overall expression. It should be related to the theme of the choreography, the style of the accompanying music or the character of the dance. It can reveal a lot, although it does not necessarily have to match the actual feelings of the performing dancer. Thus, the performing dancers also become actors on the stage. The seemingly pleasant expression does not always correspond to their inner state. We know from experience that facial expressions as well as the overall movement expression are influenced by several factors.

In addition to the facial expression, the expression of the entire demonstrated movement is essential too, since it reveals the inner world of the interpreting dancer, their hidden charge, the charm of their personality (Svitková 1997). Expression movements are an internal manifestation of mental, especially emotional processes and states, revealing ongoing inner processes (such as excitement, tension or joy) that accompany the sports performance. They are not an error of the aesthetic appeal of the movement.

However, some also reveal emotional states and processes that a dancer would rather hide, since they suggest fear, fatigue, embarrassment, tension, cramping, or disappointment at the failure of performing a certain figure correctly. Due to aesthetic requirements, such elements should not be included in a performance. It is therefore necessary to manage these spontaneous expressions during the training process and master their higher, more sophisticated forms.

Most importantly, an aesthetic expression meeting the requirements of the given segment of movement is developed. It primarily serves to an emotional transmission of information and to an aesthetically convincing self-expression. A dancer who has mastered the basic alphabet of these expressive movements is able to present a multitude of diverse emotional states and processes. Complicated methods of expression cultivated by special training are employed in dance or figure skating performances. The performers apply them to convey emotional states and processes that oppose each other to bring contrast to the dance performance (dramatic and lyrical, serious and humorous, staccato and legato, andante and allegro). Dancers attempt to express the course of individual emotional experiences, such as compliance, conflict, crisis or reconciliation, in certain configurations.

7.2 AESTHETICS OF CLOTHING AND THE OVERALL STYLING IN DANCESPORT

The most visual expression of the dancer is their style of clothing and appearance (styling). The world of fashion in competitive dance is limited by a set of rules. However, the dancers generally primarily comply with the trends of world fashion. The style of clothing, hair design and make-up are powerful means of addressing judges and spectators. In the meantime, they also inspire the dancers themselves and complement their distinctive styles. It is vital for the dancers to try to distinguish themselves. Just as each person has a distinctive signature or fingerprint, it is essential for each dancer to have their own visual signature in DanceSport.

According to Hižnayová (2009), in some cases (such as Latin American dances, belly dancing, ethnic dances and others), a perfect stage appearance can have the effect of increasing a woman's self-esteem: due to specific styling (strong make-up, beautiful costume) she has the opportunity to view herself as beautiful, seductive and appealing: the perfectly styled woman is moving gracefully in the rhythm of passionate music while maintaining physical contact

with the partner; such experience of all senses can be erotic, and the woman feels seductive, irresistible and wanted.

Some couples often try to attract attention with an extraordinary costume design. An original outfit often does not require much – a small detail, an unusual combination of colours or an atypical decoration or accessory is usually enough. However, the process of finding the right dress design is rather challenging. It should consider a number of parameters, such as the proportions of the individual dancers as well as the couple as a whole, their colour type and style of movement. Costumes should accentuate the strengths and conceal the weaknesses of the dancers while they should feel comfortable and well in them. Dancers can begin to build their own style of clothing after they find out what suits them and what does not. They normally stick to the same dress cut with slight variations for a certain period or an entire season. The primary condition is that the dancers must look more appealing in their costumes than in everyday clothing. The same is true for hair design and make-up. Both have to highlight the attractive facial features of the dancers and conceal any imperfections. Thus, the overall styling should be original but neat throughout the entire duration of the competition. Smearred make-up, dishevelled hair and torn or dirty clothes are unacceptable. Even body make-up should create a clean impression. Too dark tanning is unappealing and creates a grotesque impression in competitions. When creating the overall style of the dancer, an emphasis is put on proportions. There are various tricks to mask body proportions; nobody is perfect, there are only more and less well-groomed individuals. The dancer should know their body and face very well or entrust themselves to an expert. There are several faux-paux that dancers should avoid, such as: holes in stockings; underwear sticking out from the costume, visible underwear of other colours than the costume, too tight underwear; black stockings in beige or white shoes; short socks or socks of other colours than the trousers and shoes; extreme tan; too much jewellery worn by a man; hair covering the face and eyes; sweaty hair; a bad cut of the man's trousers or shirt; short trousers; short-sleeved shirt; or a shirt which is supposed to be tucked in the trousers but is sticking out.

Individual attention should be paid to shoes. They should be clean since the dancer wants to present high-quality footwork and cannot show good feet in dirty shoes; this depreciates the entire performance.

Every dance couple pays tribute to their work with a high-quality, clean look and shows the audience, adjudicators and coaches that it takes the performance seriously. In the meantime, the couple thus demonstrates an appreciation of the people in the DanceSport community, since its image proves a respect towards the members of the community, their interests, mission and personalities (Horvátová 2012).

8 COMPONENTS OF TRAINING IN DANCESPORT

Drawing a distinction between the fitness, technical, tactical, psychological and theoretical components of sports training enables the differentiation of the training load mainly in terms of its content. All components of sports training are mutually connected, yet they contribute to the development of performance in various types of sports and various training periods to varying degrees. The individual components of the sports training are significantly intertwined at certain stages of training (Moravec 2007). From the perspective of current training practice, it is necessary to combine training resources, methods and forms of exercise in a manner which will enable the comprehensive fulfilment of the tasks of all components of sports training.

DanceSport is quite demanding, since sports training in DanceSport is the sum of a general training and specialized dance training. The dance season lasts from September to June of the following year, roughly in accordance with the school year in most Western countries. The training of dancers of lower performance classes has no season peaks set during the year, the couples attempt to achieve advancement to a higher performance class in competitions listed in their category according to the calendar of competitions. Transitional and preparatory periods are in July and August, when competitions are rarely performed. The training of couples of higher categories focuses on championship competitions (Slovak Championship, European Championship, World Championship), in accordance with the calendar of competitions. The training of each couple is individual and grows more demanding as the couple advances through performance categories (Molnárová 2002).

8.1 THEORETICAL TRAINING

Theoretical training is aimed at obtaining a wide range of general and special knowledge related to the given sport or sport discipline. Theoretical training in DanceSport consist of learning about the following:

- ways and rules of competition;
- dance techniques of performing the movement of the body and its parts, techniques of steps, movements, guidance and following in couples, rhythmic values and rhythmic interpretation of individual dance movements, step variations;
- sports training in DanceSport;
- basic repertoire, the history of dance;
- competition evaluation methods, the progress of couples from individual rounds and the method of evaluation in the final round;
- proper lifestyle throughout the training year, diet and proper fluid intake before and after a competition;
- a dancer's rehabilitation and regeneration;
- theoretical analysis of competitions, analysis of video recording, analysis of errors and achievements.

Learning about the dance itself is another important component of the theoretical training, since it is important to be able to properly name the actions of the couple: each movement and figure has a description in both English and Slovak and an existing terminology used in all of these descriptions (Štiavnický 1978). Meanwhile, current trends in choreography, fashion trends in dressing, makeup and hair design, as well as an overall awareness of the development of individual Latin American and Standard dances, should be followed.

8.2 TECHNICAL TRAINING

Technical training is the most relevant component of the training of DanceSport couples. It focuses on acquiring and improving movement and dance skills and is undertaken by practicing techniques of specific dances in accordance with the current knowledge of acquiring motor skills. The term “dance technique” is understood a purposeful way of solving a given movement task in accordance with the rules of DanceSport, biomechanical patterns and the movement possibilities of the dancer. The aim of technical training is to acquire and stabilize a wide range of dance movement skills and habits in conjunction with the development of coordination skills (enhancement of the function of the central nervous system).

A further role of technical training in DanceSport is the improvement and stabilization of the dance technique adapted to the individual qualities of the dancer and the expansion of the variability of dance skills in connection with their application in competitions. Technical training significantly influences the course and final results of the overall training process. The dancers must learn the technique of each dance. The technique as such is made up of individual dances, movements and whole figures, while in later stages of training it requires the learning of parts or the whole assembly, its overall dynamics and movement. Technical training in DanceSport focuses on the movements and positions of individual body parts as well as the body as a whole. These movements can be categorized as head, torso, pelvis, arm and leg movements. However, the correct and aesthetic holding and position of the individual as well as of the entire dance couple remains the most important component. After mastering the basic figures and posture, the couple needs to acquire the dynamics of movement, dance expression and creativity, showing the fluency of movement and offering enough space to compete. Furthermore, technical training deals with the principles of steps and taps in accordance with the character of dance, rotation (one of the most common movements in dance), various jumps conducted to perform certain simple acrobatic movements and breathing in a couples' movement. The dancer must have some technical knowledge

in order to perform the content of the dance idea as well as to formally present it. Acquiring and perfecting dance techniques are parts of a multi-stage motor learning process; its individual phases overlap in the terms of psychological, physiological and pedagogical processes and mechanisms and it is sometimes impossible to precisely determine their strict boundaries in practice.

First Phase of Motor Learning (Generalization, Irradiation)

During the first phase of motor learning, the dancer becomes acquainted with new moves, step variations and dance figures. Every new movement is initially conducted under constant conscious control. Impulses which the dancer gains from external and internal analyzers create the idea of a new physical activity.

- Movements are still cramped and lack continuity after the first practical attempts.
- Uncoordinated movements are related to imperfect notions of physical activity.
- The nervous system is gets tired quickly at this stage; it is therefore not recommended to have a fast sequence of movements and a large number of repetitions.
- Practicing one dance skill, step or movement variation should be concentrated in several consecutive training units taking place within short periods of time.

This phase of motor learning is called generalization, in accordance with the external features of the performance of the movement skill. Movements are inaccurate, uneconomical, and contain a large number of unsuitable features that impede the execution of a dominant physical activity. This is a consequence of irradiation – the spread of impulses into different areas of the cerebral cortex.

Second Phase of Motor Learning (Concentration, Differentiation)

The second phase of motor learning is based on the practical repetition of a movement in stable conditions. Its main mechanism is the gradual consolidation of processes leading to the correct execution of the practiced dance skills.

- Association links are established among the movement expressions based on feedback enhancement (praise, encouragement, technical guidance).
- The dancer receives additional verbal, visual, and kinaesthetic information from direct action and feedback.
- The number of repetitions of exercises, movements, and step variations in the training process increases according to a set plan.
- The dancer gradually forms a specific idea of the undertaken movement activity in standard conditions.
- After the movement is efficiently grasped, a motor innervation pattern is saved in the brain subcortex.
- The movement gradually becomes less controlled by will (consciousness).

The concentration of impulses in parts of the brain controlling movement execution allows their differentiation during external implementation.

Third Phase of Motor Learning (Automatization, Stabilization)

The third phase of motor learning is the final stage of the technical-tactical training, resulting in applicable dance skills and habits and an acquired ability to perform physical activities properly, economically, in relatively stable conditions, automated and with reduced consciousness control.

- The dancers control enough kinaesthetic feelings and are able to precisely differentiate among the subtle shades of their physical activity.

- The dance technique is gradually improving in accordance with the physical, fitness, functional and psychological predispositions of the dancer.
- The technique is stable and variable; it does not deteriorate significantly under the influence of external and internal deformation factors.

Movements become automatized in this phase while a stabilization of processes in steady time and space conditions occurs. Movement skills management is taken over by the inner circuit of the central nervous system. Dance movement activity becomes economical: accurate, rhythmic, not containing unnecessary energy losses.

Fourth Phase of Motor Learning (Creative Coordination, Creative Association)

The entire learning process is completed in the final phase of motor learning by practicing dance skills in changing conditions to achieve a high degree of variability. This phase is characterized by the ability of the dancer to perceive, think, program and anticipate changing situations quickly and to respond to them during specific dance activities. Therefore, this phase is also called the phase of active association. Its external expression requires the dancer to perform creative coordination utilizing their acquired dance skills based on an appropriate involvement of motor skills. The basic features of a successful motor learning process are the following:

- **Pace:** documented by the number of steps in an algorithm-type program; the number of attempts needed to handle a particular movement; or the amount of time needed to acquire a certain dance skill.
- **Quality:** most often evaluated by professional observation, comparison or biomechanical analysis.
- **Muscle memory:** the ability to reproduce movement acquired during training or after a certain time lag.

8.3 TACTICAL TRAINING

Tactical training is an essential part of the overall training process in DanceSport, since it is aimed at acquiring and developing tactical knowledge and skills that enable the dancer to choose the optimal solution in every competitive situation and to implement it in practice. The content of tactical training is mainly focused on the development of tactical thinking and action, which is associated with solving the following tasks:

- Acquiring knowledge of DanceSport tactics theory, i.e. learning about all possibilities that might arise during a competition. Acquiring the rules of competition and the possibility of using them for the own benefit of the dancer.
- Obtaining information about various external conditions of the competition such as the surface of the dancefloor, hall lighting, the colour of the dancefloor, climatic conditions, details of the sports hall – air conditioning, ventilation, closed spaces without ventilation, dancefloor layout audience and podium.
- Planning dance competitions: selecting more and less important competitions in accordance with the preparedness of the couple.
- The image of the couple: from the tactical point of view, the lighting of the hall must also be taken into consideration while determining the choice of the appearance of the couple.
- The composition of a coaching team accompanying the given dance couple.
- Training in alpine environs: simulation of possible climate-related difficulties.
- Floorcraft: it is essential since normally several couples compete on the same dancefloor at the same time (Ivanič, 2002). It is the ability of a given couple to control their own choreography in order to avoid the interruption of the dance and physical clashes with other couples. Since there are about 6 to 20 couples performing on the same dancefloor at the same time, the couple must be able to determine how and where to start dancing

with respect to the others, as well as how and where to move by applying dance figures during the dance.

- Systematic development of creative skills (creativity): allows the creation of new, original ways of solving competitive situations, such as getting up from the dancefloor elegantly after falling, returning to the dance partner if there is a rival couple dancing between them, the male partner's way of indicating the territory in which his partner moves, or elegantly getting back to the right rhythm after its disruption.

Tactics also requires the ability to attract attention, reflected e. g. in the ways of arriving on the dancefloor or various tactical changes of posture and movement on the dancefloor. Less advanced dancers mistakenly believe that they would impress the jury by a high number of challenging and complicated figures. However, if a couple chooses an impressive figure to be part of its choreography, it must be convinced that it has mastered it and that it is necessary to include the given figure among the basic steps which must be present in all choreographies (Moore 1988). Aesthetically pleasing clothing, makeup, hairstyle and skin treatment are also a part of the tactics.

8.4 PSYCHOLOGICAL TRAINING

Psychological training, as a component of sports training, is aimed at creating optimal psychological preconditions allowing the dancer to fully exert their potential in the competitive presentation of a given dance performance.

Psychological training in DanceSport is essential, yet often overlooked. The most important aspects of the dancer's personality include determination, temper, will and character, as well as empathy and self-reflection. Joy, temper and expression of emotions in the sporting performance of a dance couple is more intense than in other types of sport, also in terms of parallel sporting and acting performance. Therefore, emotional preparedness and maturity are essential attributes of a successful dancer. Since DanceSport competitions are evaluated subjectively, dance couples are subject to a high number of stress

factors. Thus, they should have a high psychological resistance to external negative impacts. Since top-performance dance couples train with several coaches, often from various countries, at the same time, it is essential for them to be able to quickly change their ability to perceive the training in terms of the diversity of their coaches' expressions, sometimes within a single day. Consequently, the couple needs to be able to analyse and synthesize the problems it encounters. DanceSport partners communicate on the dancefloor in a non-verbal way, so it is necessary to know the principles of this psychological phenomenon. Since dancers usually perform in front of an audience, non-verbal communication figures are also essential in applying the dancer-audience communication formula. The perception and evaluation of multiple stimuli at the same time (the perception of one's own movement, the movement of the partner, the music, the shape of the dancefloor and one's own position, the distribution and movement of other couples on the dancefloor) requires an increased degree of high-quality kinaesthetic and visual perception of various parameters. Before a competition, it is essential for couples, especially beginners, to conduct a certain number of performances in front of an audience where a possible failure would not reflect negatively on the psyche, preparation and motivation of the dance couple. It is important to create an atmosphere in which the performance of the couple comes as close as possible to the training, or, possibly, exceed it. Pre-start stress is thus reduced and even a possible failure can be a motivation for further activity and performance enhancement.

The roles of psychological training in DanceSport are the following:

- Forming the nexus of the personal qualities of the dancer and increasing their psychological resilience with respect to the requirements of the dance performance.
- Regulating ongoing mental states and processes (states of optimal and inadequate activation such as start fever or start apathy) in the conditions of dance training and preparation for dance competition.

The psychological training as such consists of three parts:

- **Long-term psychological training;**
- **Mid-term psychological training;**
- **Short-term psychological training.**

The long-term psychological training of a dancer is generally focused on the formation of their personality, the development of their positive character traits, moral qualities and willpower, increasing their psychological resilience, enhancing qualities necessary for the self-regulation of one's own behaviour, thinking and feeling, supporting a healthy self-confidence and ambition, as well as improving specific cognitive abilities (e.g. anticipation, dance intelligence, floor craft, etc.). Dancers need to be taught to be able to cope with the stress and challenging conditions of the competition. The aim of this process is to gradually increase the resilience and adaptability of the dancers to the expected demands of the main competition. These stress situations need to be adapted to the individual load capacity of the dancer and systematically stepped up to the desired level, e. g. by modelled training competition practice, inter-club competition practice, preparatory competitions or the competition itself.

The mid-term psychological training lasts for several months, days or weeks, depending on how demanding the given competition is. It is aimed at providing the dancer with sufficient information about the organizational and material conditions of the upcoming competition such as its schedule, the quality of the dancefloor, the dance area, the position of the audience and adjudicators around the dancefloor, the lighting, time shift, climate, venue and information about fellow competitors. Such information is primarily to be obtained by the coaches and organizational teams.

The short-term psychological training should induce, maintain or restore the optimum mental state of the dancer to stimulate a maximum dance performance in the current competition. The pre-start is a state of optimum readiness for competition. Since a dance competition consists of several rounds,

and in some cases also a redance, the pre-start state of the dancers largely influences their possibilities of advancement to the next round. The coach should be familiar with the ways of self-regulation of the pre-start state of the individual dancers and prepare conditions for their possible implementation which will allow the dancers to fully concentrate on the competition. Both a low activation level (start apathy) and an excessive irritation of the central nervous system (start fever), as well as the excessive willpower of the dancer, can present an obstacle to presenting an optimal dance performance. However, there are also cases of higher dance performance with excessive stimulation bordering the state of trance.

The main principle of the psychological training is the prevention of the occurrence of negative mental conditions during training. These are usually caused by an insufficient mental adaptation of the dancers to the training load and conditions of the competition. The coach, in co-operation with a psychologist, can apply a whole range of various means and methods to promote psychological stimulation:

- verbal, non-verbal, regulation of interpersonal relationships;
- meditation, mental training, autogenic training, suggestion, hypnosis;
- yoga, breathing exercises, stretching exercises, massage, sleep;
- rational lifestyle.

The dance coach, in collaboration with a psychologist, can apply various activation means and techniques to improve dance performance. The following means are applicable by the coach to increase activation in the case of start apathy:

- Breathing exercises – activation breathing;
- Internal energy activation exercises;
- Stretching muscle groups;
- Listening to dynamic music;
- Intense warm-up using swing movements;

- Whooping;
- Clapping until the dancer experiences mild pain;
- Dynamic massage;
- Allowing the dancer / dance couple to interact with the atmosphere of the dance competition;
- Allowing the dancer / dance couple to observe their opponents
- Working with the idea of excellent performance.

The following **relaxation and calming techniques** are applicable by the coach in the case of start fever:

- Relaxing breathing;
- Soothing massage;
- Listening to quiet music;
- Stretching;
- Slow, conscious movements;
- Solitude, isolation from the atmosphere of the dance competition;
- “Nothing is going on” technique (subjective reduction in the importance of the competition);
- “Umbrella” technique (having someone who protects the dancer / dance couple from the environs);
- Relaxation methods (autogenic training, progressive relaxation, etc.).

Areas of mental training:

- Relaxation – techniques to increase the ability of the dancer to relax mentally and physically in any situation. By mastering them, the dancer can quickly relax during the competition or under great psychological pressure.
- Activation – techniques focusing on the ability to mobilize and activate mental and physical strength to maximize performance at a critical moment.

- Ideomotor training – focuses mainly on visualization techniques which are an excellent complement to the training of demanding movement sets.
- Modelled training – a special area of learning to be accustomed to mentally challenging conditions using the adaptation effect.
- Concentration Training – concentration techniques improve attention during important moments of a competition, especially the ability to break away from disturbing stimuli, whether external or originating in the own consciousness of the dancer.
- Special mental and physical exercises – the array of techniques aimed at a more thorough perception of one's own body. These include techniques that combine a high level of self-awareness during the conduction of movement exercises.
- Techniques of suggestion and autosuggestion – these improve the ability of the dancer to mentally prepare for the upcoming competition, consolidate self-confidence and focus on key performance moments. They also help in recuperation and speed up returning to sports.

8.5 CONDITION TRAINING

Condition training in DanceSport is a component of dance training aimed at inducing adaptation changes in the body of the dancer, primarily with the aim of the enhancement of condition and coordination motor skills. It focuses mainly on the development of the physical and functional potential of the dancer. Condition training is considered to be an elementary pre-condition for conducting further components of sports training at a higher level in most sport disciplines.

The goal of condition training is to ensure an adequate level of development of the versatile movement potential of the dancer which would enable them to master a rational dance technique and utilize their individual personal traits to achieve a high level of proficiency. Furthermore, condition training also develops the energy and functional potential of the dancer and systematically acts in the direction of the development of general and special

motor skills in accordance with the requirements of the dance performance (Moravec 2007).

Condition training in DanceSport is usually closely linked to the technical training as well as to the acquisition and improvement of motor skills and dance techniques. It significantly influences the quality, pace and stability of the acquired DanceSport skills (Lenárt 2002). In line with Šimonek (2003), we might say that in addition to other components of sports training, such as technical, tactical, theoretical and psychological training, condition training is playing a crucial role, since it is a decisive determinant of all sports activities. The key element of condition training in DanceSport is the development of the physical predispositions of the dancer.

The essence of condition training in DanceSport is seen primarily as the development of the general condition of the dancer which determines not only the quality, but also the degree of use of their coordination skills. An analysis of dance competition activities has shown that many couples show deficiencies in their individual technical predisposition, and, therefore, are unable to manage the technique optimally in variable situations and utilize the knowledge and skills obtained during the training for their benefit during competitions. One of the main reasons of this phenomenon is an underdevelopment of the condition base of the couple or individual dancer. This finding of ours is confirmed by Dařena and Odstřil (2006), who claim that most dancers are not fit enough to endure a 1.5-minute performance, which is equivalent to the load of one dance competition performance, in high quality.

Even though the dance performance also has anaerobic features, it is the aerobic endurance that allows dance couples to endure long-term physical load in competitions. In cases of insufficient condition preparedness, the loss of fine coordination in the competition dance is visible and observable before the dancers feel it. Such shortcomings may be eliminated if, in addition to the development of technique and dance skills, a purposeful and systematic development of condition and coordination skills is undertaken.

Endurance abilities are associated with the ability to perform physical activity for a prolonged time at a certain level of intensity without compromising its efficiency. Normally, the intensity of a given activity decreases substantially with the prolongation of its duration, while it is possible to carry out a physical activity with a higher intensity in a shorter period of time. The energy requirements and the ways of their delivery differ depending on the duration of the given physical activity and its intensity. Endurance skills rely primarily on the activation of the aerobic energy system. According to Kasa (2000), they depend primarily on the functional capacity of the cardiovascular system and their level decides the level of sport performance as well as the possibilities of increasing the volume of training load in sports training. Based on its optimum level, sports performance can only be achieved in the anaerobic zone. The lactate energy system plays a significant role in both short-term and medium-term endurance (Laczo 2007). Laczo (2007) categorizes endurance according to its duration as follows:

- short-term – 35 seconds to 2 minutes;
- medium-term – 2 minutes to 10 minutes;
- long-term I. – 10 minutes to 35 minutes;
- long-term II. – 35 minutes to 90 minutes;
- long-term III. – 90 minutes to 360 minutes;
- long-term IV. – 360 minutes and more.

The basis of general physical condition, and thus of individual condition, is aerobic endurance. The intensity of the movement of the dance couple is as high as possible during the competition and does not decrease substantially. However, it needs to be maintained for a prolonged period during the competition, which puts high demands on the aerobic capacity of the dancer, who must be systematically prepared for such a load during their training process.

The level of aerobic endurance determines the volume of training load in the dance training of couples as well as the quality of performance of competitive dances in demanding rounds often lasting for several hours, where long-term endurance becomes crucial. Medium-term endurance plays a crucial

role in the final round, when couples usually dance all five dances in succession with only a one-minute rest period between the performances.

In individual dances (Chren 2005), the heart rate of the dancers achieves 190 beats per minute (bpm) and more, meaning that their performances are in the anaerobic zone. Anaerobic endurance as such consists of short-term endurance, endurance in speed and endurance in strength with modifications of the aforementioned two forms.

Short-term endurance is utilized the most often in DanceSport since the duration of individual dances ranges from 1.5 to 2 minutes. The most important feature of short-term endurance is the predominantly anaerobic release of energy activating the lactate system.

Endurance in speed is an endurance skill. Couples undertaking an endurance-speed training may perform individual dances in succession imitating the conditions of a competition or multiple times with minimal rest between the individual dances and rounds. Such training is called competition practice. It consists of strengthening exercises focusing on individual muscle groups and the Standard or Latin American dances themselves.

Strength abilities are essential for dancers, since every movement of the body in space is conditioned by adequate muscle strength. The extent of strength depends on the resistance of the external forces. From the complex of strength skills, it is necessary to develop a static strength, which is manifested in maintaining control over one's own body or the body of a partner at both static and unstable positions of the female partner. Lower limb, back and abdominal muscle strength is of particular importance. The back and abdominal muscles form the so-called postural muscles (muscle corset) which are crucial to the proper posture of dancers in dance technique and balance (Ivanič 2002). Dynamic strength is manifested by a movement of the musculoskeletal system or its part based on an isotonic, auxotonic or eccentric contraction. It causes movements to accelerate or decelerate, which is important during altering the dynamics of a dance or figure. Rapid dynamic strength is manifested in repeated multiple exercises performed under a relatively large external resistance

attempting to achieve high frequency and speed (Štefanovský et al. 2012). Of the dynamic strengths, the explosive strength of the lower limbs is crucial. Bouncing endurance and the explosive strength of the lower limbs are mainly utilized in jumps, turns and kicks, which can be observed in dances such as Jive, Quickstep and Paso Doble. In fast dances, where some figures are based on a greater complexity and a higher number of moves, speed-strength skills are limiting.

Speed abilities are manifested in DanceSport as the speed of individual movements, which are a pre-condition of speed as well as other skills, such as strength, coordination and endurance. The acyclic frequency rate characterized by the effort to make as many movement cycles at a specified time as possible, e.g. kicks in Jive, and is also of interest.

Flexibility has a special position within the structure of motor skills. Some authors include mobility among condition skills, others among coordination or mixed condition-coordination skills. Current authors, both in Slovakia and internationally, list it as an independent movement skill determined by muscle elasticity and joint flexibility (Strešková 2005/a). There are two types of flexibility: active and passive. When developing flexibility, one needs to consider that an increase in passive mobility is associated with an increase in the active mobility potential (Strešková 2003). Flexibility is one of the determining factors affecting the dance performance of the couple, since it allows for increasing the level of the technical and aesthetic demonstration of dance figures and movements, the extent of which is the most important component of their evaluation. The range of movement of the spine and lower limbs is visible in various dance figures and lines, which is also reflected in the response of the audience.

Based on my own long experience in world competitions and sports training of dance couples, I believe that most coaches only apply dance methods and means to develop the condition of the dancers. However, overall condition can only be raised by dancing to a certain extent which is insufficient for top world-

class couples. In my opinion, the proper method of increasing both individual and couple condition is by applying additional means of improving condition skills besides dance. It can ultimately be reflected in the ease of performing a competition set in individual Latin American and Standard dances even after several rounds.

8.6 COORDINATION TRAINING

While conditions abilities place high demands on the functional systems of the body (cardiovascular, neuromuscular, respiratory, hormonal, enzymatic) and the energy sources of dancers, coordination abilities are primarily determined by the level of analysers (auditory, visual, vestibular, kinesthetic) and the central nervous system. Coordination abilities are among the limiting factors of dance performance, together with technique. Well-developed coordination abilities influence the pace of motor learning and hence the precision of technique acquisition (Strešková 2005/b). Each sport has specific requirements for coordination abilities which must inevitably be respected in sports training. Research and training practice confirm that the level of coordination abilities can be substantially increased by systematic and rational training. This has been proven by a considerable progress in sports requiring a high level of coordination, such as sports gymnastics, figure skating and DanceSport, in which technical performances of unusual difficulty, unknown to previous generations, have been presented in recent years (Šimonek 2003).

Reaction ability is the ability to start quickly as well as to implement a short movement activity of maximum intensity at a given signal (Doležajová and Lednický 2002). Reaction ability in DanceSport is crucial when leading the female partner: it is her ability to react to the impulses of her partner precisely and on time. This ability is closely linked to rhythmic abilities, when the male partner has to give impulses in proper advance before the beat, so the female partner can respond to it at the right time and the couple can dance together in rhythm. There are two types of reaction (simple and complex reaction) and various

impulses (signals) which the reaction follows: sound (acoustic), visual (optical) and touch (tactile). All three forms of response are represented in DanceSport, the most frequent being the touch signal. Leading in a couple can be active or passive: active leading is the ability to transfer momentum from one's own motion centre to the partner's body, while passive leading means pointing to free space by tilting or twisting one's body or by stretching or loosening it in the vertical direction. A proper lead of the male partner provides the female partner with information transmitted through a touch signal telling her when, where and what type of action is she supposed to anticipate (Komora 2002). The body of the male partner must be connected to his hand, his hand to the hand of the female partner and her hand to her own body. If the male partner conducts a movement using his body, he also induces the movement of the body of his partner. She performs the movement with a small delay since it responds to the lead of the partner. The reaction time is short but existent. Other factors, such as age, gender, warm-up, acquired experience, fatigue, etc., also determine the rate of reaction. Exercises aimed at the development of the reaction rate in DanceSport need to be conducted in varying space and with diverse accompanying music.

Rhythmic abilities require adhering to a certain rhythm of movement. Conducting one's own inner rhythm or performing movements in accordance with a given external rhythm is a skill that helps achieving a high-quality sports performance. It is the ability to respond as accurately as possible to rhythmic stimuli and is the coordination skill cited by many authors as the second most important, contributing significantly to the final performance (Strešková 2005/a). Rhythmic abilities in DanceSport are mostly reflected in the perception of the given acoustic rhythm which is transferred into movement. The basic rhythm must always be observed, despite various rhythmic variations of movements, unexpected motion stops or multiple rotations. Rhythmic abilities are an essential prerequisite for dancers. The couple has to show a smooth and aesthetic movement in the given rhythm: the higher the performance class, the better its ability to dance and the smoother the movement in accordance with more complex rhythmic strings should be (Lenárt 2002). Rhythm is created by dividing

the flow of energy into periods of equal or different lengths. This division becomes visible at different bodily levels or during the creation of the necessary point of support. The term “keeping the basic rhythm” means that the couple will take a step in the prescribed time frame and in the correct time ratio of each step (Štiavnický 2004).

Balance abilities are essential for all physical activities in sport. It is one of the coordination abilities that can be substantially improved by systematic and well-targeted training. Balance abilities are understood as the ability to maintain body balance, or to restore it if disrupted. The level of balance and fixation of the body are determined by the strength of the postural muscles and by how well-trained the vestibular analyzer is. In DanceSport, similarly to other sports disciplines, the ability to maintain balance is affected by the size of the support area. The performance of the dance couples is presented on a narrowed support area since both male and female dancers and dancers perform in heeled shoes.

The significance of balance abilities in DanceSport is essential. For Latin as well as for Standard dances, the shared balance of the couple as a single unit is important. When performing various dance figures and variations, dancers utilize the balance of their own body; its successful grasp is a prerequisite for a mutual couple's balance of high quality. Couples in Standard dances are in close physical contact, while in Latin American dances, they are in physical contact facilitated by the arms and hands. The overall balance of the couple can be disrupted by the slightest diversion of balance. Changes in the direction of movement of the dancer / couple arise from the disruption of counter balance, bouncing, over- or under turn, undercut, swinging, etc. DanceSport utilizes both static and dynamic balance.

Static balance is characterized as the ability to keep the body in a specified resting position. Maintaining the body or its parts in a single position cannot be understood as absolute stillness; it is rather a constant return or oscillation around an ideal path or point. Proper balance may be observed on the outer appearance of the couple (silhouette) by conducting functional comparison of all body parts

to the next movement. Dancers employ static balance mainly in static positions, lunges and raises.

Dynamic balance is an ability based on the feeling of acceleration and is especially important in sports in which the athlete has to make significant and often rapid changes of positions. Doležajová and Lednický (2002) characterize dynamic balance as the ability to maintain and restore balance after extensive and often rapid changes in motion positions. Dynamic balance is essential for dancers while performing rotations and multiple rotations, since it is desirable to stop the body after the rotation and remain in a static position without a deflection or disruption of posture. It is also vital while moving the body from one position to another. Dynamic balance is important to conduct vertical, horizontal and rotational movements in DanceSport. It is created by releasing the energy of any static balance with the corresponding effect of reshaping this energy into another form (Štiavnický 2004).

Kinaesthetic-differentiation abilities in DanceSport are understood as the ability to control, realize and differentiate the movements of the head, arms, hands, torso, legs and feet in movement requiring a complex coordination in time, space and strength. It is vital for the dancer / couple to be able to coordinate and properly isolate the individual parts of the body during the performance while maintaining a correct technical demonstration of the demanding dance figures in accordance with the rhythm of the musical accompaniment.

Spatial-orientation abilities are called “feeling for space” by Strešková (2005/a). It is the ability to quickly and correctly determine one’s position in space. According to Měkota and Novosad (2005), these abilities are based mainly on the reception and processing of optical and kinesthetic information. They have an irreplaceable position in within DanceSport, since they influence the ability of the dancers to quickly determine and adequately change the position and movement of the body in space, determine the position of the partner and properly react to other dance couples on the dancefloor by movement. Spatial-orientation abilities allow the dancers to quickly find their orientation in every

situation, as well as to react and coordinate their movements in accordance with their current dance tasks.

Orientation on the dancefloor – floorcraft – comes to the fore in DanceSport. Floorcraft is the ability of a dance couple to utilize free space to perform their own choreography on a dancefloor, presenting their performance among other dance couples without interruption and without breaking the direction of the dance. Proper orientation on the dancefloor allows the couple to avoid collisions with other couples and to continue dancing fluently if a collision occurs despite the abilities and effort. Couples with good spatial-orientation abilities are able to respond to new situations in a properly choreographed manner and, if possible, to continue their choreography.

9 THE MANAGEMENT AND ORGANIZATION OF THE TRAINING PROCESS IN DANCESPORT

Managing the training process in DanceSport is the conversion of a complex dynamic system (dancer / couple) from one state to another by influencing its variables (fitness, technical, tactical, theoretical and psychological preparedness; bioenergetics and biomechanical adaptation etc.). The system of sports training management requires the following:

- The system of the manager (coach) and the managed unit (dancer / couple) ;
- Direct report leading operation commands from the controlling system to the controlled system;
- Feedback enabling to obtain information on the status of the managed system;
- A sufficient amount of quality information on direct and feedback pathways that reduce the uncertainty of the behaviour of the training system.

The roles of the dance coach are:

- Management, organization and planning of the training and competition process of the dancers;
- Psychological and educational formation of the dancers and couples; providing them with knowledge of sports training and competition; motivating them to achieve better dance performances in accordance with their abilities and possibilities.

Training process management consists of three phases:

- Preparatory phase – planning;
- Implementation phase;
- Innovation phase.

THE PREPARATORY PHASE consists of planning the training process. It is important to set the short-term and long-term goals of the training process in this phase and to draw up a schedule of preparatory competitions (ranking competitions, performances, invitation-based competitions), auditing competitions (Cups, WDSF Open, WDSF International Open), as well as main competitions (Championship, European and World Championships) throughout the dance season.

This stage of the planning of dance training needs to be based on the knowledge of the following:

- The current state of the dancer as a managed system, their level of dance performance and training, familiarity with the already absolved training load.
- A long-term sports training model that should ensure the continuous growth of the dancers based on the following:
 - Prognosis (prediction) of the dance performance;
 - Knowledge of the structure of sport performance in DanceSport and its genesis;
 - Knowledge of developmental age patterns and of the prognosis of possibilities of development of factors determining dance performance and of changes in the state of training;
 - Prognosis of the target situation, model characteristics of a top dancer, who would be able to achieve the expected performance;
 - Prognosis of the content and increase of the training load, regeneration and conditions of providing a complex dance training process.
- The number of training units per week:
 - Dance training: Latin American dances, Standard dances;
 - Additional training: Classical dance, Jazz dance.

- Planning the training load applying the following indicators:
 - Content: condition, technical, tactical, psychological, theoretical;
 - Means of training: general exercises (strength training, power yoga, Pilates, etc.), special dance and competition practice;
 - Character of training: speed, power, endurance, coordination, speed-power;
 - Type of training - volume, intensity, coordination complexity, mental difficulty;
 - Load range:
 - Small (30–50%);
 - Medium (51–70%);
 - Large (71–85%);
 - Submaximal and maximal (86-100%);
 - Supramaximal – with the help of a second person – coach (over 100%).
- Setting days for regeneration and rest:
 - Passive (rest, sleep) and active (cycling, jogging, swimming) regeneration;
 - Compensatory relaxation exercises, regenerating water jogging;
 - Rational nutrition, hydration, replenishment of liquids, minerals and vitamins;
 - Various types of massages, hydrotherapy, sauna, electrotherapy, balneological procedures, rehabilitation exercises, pharmacological means.

Creating a training plan is just one of numerous aspects of a successful training management process. Dance performance is understood in terms of its causal clarification as a current manifestation of the internal condition of the dancer which can be altered primarily by a deliberate training effect (occasionally also by random external stimuli).

THE IMPLEMENTATION PHASE is the second crucial phase of training process management. It consists of the following parts:

- Directive training activity;
- Obtaining information about changes in the current state of the dancer's level of training;
- Correcting the training effect.

Directive training activity

At this stage, the dance coach determines training stimuli, selects various training means and methods, induces situations and determines the conditions in which the training activity takes place in accordance with the training process plan established during the preparatory phase. The coach decides a proper training load, directs the attitudes and interests of the dancers and motivates them to actively engage in training activities. The coach constantly monitors the movement activity of the dancers and directs them based on their responses to the training load and assigned tasks. The dance coach continuously obtains information about the performance of the dancers by means of observation, camera recording and keeping evidence of the training load (mastered dance figures, step variations, technical requirements and special dance endurance) and evaluates the effectivity of the training. At this stage of the training process, effective verbal and non-verbal communication between the coach and the dancers, a positive attitude of the coach towards the dancers, listening to the dancers and respecting the authority of the coach and his requirements are vital.

Obtaining information about changes in the current state of the level of training

A coach can effectively manage the training process only if they have a sufficient amount of objective information about the changes in the dancer's training status occurring as a reaction to the training process. This part of training process management used to be neglected in DanceSport in the past due to various reasons, such as a lack of experts and knowledge, the absence

of computer equipment or a lack of interest. However, the current demands of DanceSport are so high that it is not possible to achieve a maximum DanceSport performance without tracking, evaluating and diagnosing the level of training of the dancers. The main goal of this part of the training process is to diagnose the trainability of dancers. A variety of diagnostic methods and procedures are applied to assess the level of the condition, technical, tactical and functional training of the dancers as well as of their theoretical and psychological readiness:

- **Level of condition training:** by means of motor tests (e.g. balance test – Flamenco, Plate Tapping Tests, seating bend reaching forward, standing long jump, 30-second abdominal crunches, shuttle run 10 x 5 m [32.8 x 16.4 ft], endurance shuttle run, overall motor test [Jacík test]).
- **Level of technical training:** observation, testing of motor abilities, biomechanical analysis of dance movement technique.
- **Tactical and theoretical preparedness:** interview, control questions and exams.
- **Functional training:** examinations on special ergometers (VO_2 max, lactate in blood, determination of the anaerobic threshold by a Conconi Test, exercise tests on a cycle ergometer or running belt, Ruffier Test, Step Test, Orthostatic Test, jump ergometer).
- **Mental preparedness:** personal questionnaires (motivation).

Efficiency of the Training

The dance coach, as well as the dancer, constantly ask themselves the question whether the applied training load, task or assignment leads to the required changes in the level of training and thus to the increase of DanceSport performance. Feedback, whether coming from outside or inside the body, only makes sense if it helps the coach to regulate the training effect. This particularly complex training process management system cannot be narrowed down to error correction, since it also requires taking the most appropriate decisions out of

a number of possible solutions. Many modern programs are opening up new possibilities for the objectification of coaching decisions in correcting and individualizing ongoing training activities. The motor learning process is thus enriched by three types of information:

- **Basic (intrinsic)**, originating in the inner circuit (receptors, tendons and ligaments), informing about the shortening, elongation, tension or relaxation of the muscles, as well as of the speed, acceleration, strength and position of various body parts and time and space accuracy. This information is complemented by information obtained through other touch, vision, hearing and vestibular receptors.
- **Complementary**, coming from the coach, who gains information about the dancer mainly by vision. Therefore, such information are rather subjective and relate primarily to the qualitative aspect of movement. Top sports have recently been relatively successful in applying various methods to provide athletes with more effective and objective information.
- **Immediate or swift continuous information** come primarily from the internal circuit of control / basic information and are transmitted in the form of clear codes to the outer circuit of regulation and are given the form of additional, complementary information. For instance, the dancer obtains information about the most effective distribution of their effort during performance in the individual dance rounds using a measuring device (sport tester, various electrodes connected to the dancer's body from the measuring device). Such measures allow to minimize inaccurate information from the coach and to select appropriate corrections, thus making the training process more effective.

THE INNOVATION PHASE is the third phase of the training process. During the innovation of dance training management, a system of storing and processing all available information about the training is employed continuously or regularly after certain time intervals. This information mainly concerns the evidence of the training load, changes in the level of training and sports

performance. The mere recording of the training and competition load is not sufficient within a functioning information system; it is equally vital to evaluate its effectiveness within defined time periods and to take appropriate operational decisions in order to modify the training effect by appropriate procedures. A new plan is supposed to be based on the previous one while attempting to integrate all new information and the use of modern means of dance training management.

Documentation in a broader sense is a summary of all relevant information about the training process and the results of the dance activity. It is based on the evidence of the conducted training and competition load and / or other environmental influences. A responsible approach of both the coach and dancer to the training process therefore require the collection of sufficient information about the type and size of the load to be used in the evaluation of the training effect. Only a quantitative expression of the training load allows for the reverse analysis of the achieved results and elimination of training errors. Evidence in individual sports disciplines such as DanceSport is conducted by applying a number of general and special indicators:

- **General indicators:** number of training days, number of training units, total time of training load, number of days of disability, number of limited trainings due to health issues, number of competitions, time spent by regeneration.
- **Special indicators:** these allow the recording and evaluation of the volume and, to a certain extent, the degree of specificity and intensity of the training load of critical training resources.

Safety principles in Training and Competition

During the training:

- Fluid intake;
- Correct and careful movement to prevent premature injury;
- Proper pre-training warm-up;
- Stretching exercises are essential after the training to stretch the loaded muscles;

- Quality of the dancefloor: cleanliness, use of auxiliary tools to reduce slipping (applying castor oil a day before the training or competition; it is also possible to sprinkle the dancefloor with wax) in order to reduce the risk of falls, dislocation of ankle, knee joints, etc.;
- In simulated competition training on a small dancefloor, it is necessary to create more groups to avoid unwanted collisions between couples;
- Restrict or ban various fashion accessories such as necklaces, bracelets, rings, etc.;
- It is strictly forbidden to chew gum during training – risk of choking;
- Dancers, who are not in excellent health require an individual approach and a lower load than healthy dancers in order to maintain their safety; it is necessary to have a doctor's confirmation proving that the given individual is capable of performing DanceSport;
- The coach should be familiar with the dancer's health condition.

During the competition:

- Fluid intake;
- It is necessary to create a body hydration reserve;
- Serve mainly plain water, often and in small doses, or sports drinks that must not irritate the digestive system;
- Stretching, warm-up;
- A strict ban on the consumption of unauthorized additive substances;
- A ban on the use of jewellery and sharp fashion accessories;
- Avoid collisions and injuries;
- Use nutritional supplements against cramps: magnesium, calcium, etc.;
- Prepare dance shoes before the competition to avoid slipping.

10 THE PERSONALITY OF THE COACH IN DANCESPORT

The coach plays a decisive role in the management of the training process. Demands on the abilities and personality of the dance coach are very high, given the complexity of the training management system and its content, the wide range of tasks to be solved and the creative approach necessary to be applied. The work of the dance coach is demanding and rather specific. The successful management of DanceSport training requires the coach to fulfil the following criteria:

- A positive approach to DanceSport and to sports as such;
- General and professional education;
- Relevant experience (both in DanceSport and general life experience) ;
- Features and abilities characterizing the main features of the personality of a coach;
- Overall personality profile that should be a model for children and young people;
- A high level of general and sports morale;
- Character, consistency, sense of justice, tolerance;
- Acting in the spirit of fair play;
- Perseverance, resolution, decisiveness, autonomy, adaptability, creativity, social empathy.

These character traits create a general model of the profile of a dance coach. However, further characteristics are often associated with successful coaches, such as the following:

- Leadership tendencies;
- Solid character and dominance;
- Emotional stability, stress resistance;
- Self-control, prompt resolution of various situations;
- Pursuing self-assertion;
- An ability to achieve the set goals;
- Practicality and organizational abilities.

Every coach who has worked in DanceSport for a long time is formed and developed into a personality with certain typical general and individual attributes: the coach is gradually developing into a “coaching type”. The typology of coaches varies considerably, yet it is possible to categorize three basic types of coaches:

- Authoritative;
- Empirical (scientific) ;
- Rational (spontaneous).

Coaches leaning to a single specific type are rare, most of them approach all three types in varying degrees. In addition to coaching types, we should also mention various coaching styles.

The coaching style determines the decisions of the coach regarding the technical and tactical abilities applied in training, their way of organizing the training and competition process, methods applied to maintain a healthy communication within the dance couple and between the groups of dance couples. Most coaches tend to one of the following coaching styles:

- **Authoritative style (dictator);**
- **Submissive style (fulfilling orders);**
- **Cooperative style (teacher).**

Authoritative Style (Dictator Coach)

The “dictator” coach only applies their own decisions in the training process. The role of the dancer is simply to fulfil the commands of the coach. Acceptable prerequisites for such approach are the knowledge and experience of the coach based on long years of expertise. The coach gives exact instructions on what to do and what to avoid. Some coaches apply the authoritarian style in an attempt to conceal their doubts about their own abilities. An authoritative DanceSport coach does not allow discussion with their dancers and avoids an explanation of the applied training practices. Such style can be effective if victory is the primary coaching goal and the authority of the coach does not undermine the motivation the dancers. However, dancers under such training can

lose their spiritual motivation and train with the sole aim to be praised by their coach or not to avoid conflict with them. Such training style often prevents dancers from fully enjoying the dance. All successes of the given dance couple as well as the couples in the group are attributed to the coach and not to the dancer. Fortunately, coaches of all levels gradually find out that the authoritative style is usually the least effective when working with contemporary dancers. They are aware that this style is only suitable for exceptionally talented dancers while it does not bring the desired satisfaction to ordinary and average dancers.

Submissive Style (An Opposite of the Authoritative Style)

Coaches tend to apply this style in order to make as few decisions as possible, ideally only the most necessary ones. The training process is based on free practice. The coach gives few instructions and minimizes their interference with the organization of the training. These coaches have a low ability to give instructions and manage the training process; they are too casual and lax to deal with coaching requirements and take responsibility for training. They lack orientation in the coaching function and organizational talent in the training itself. A submissive coach usually takes up the role of a caregiver, most often failing in this one too.

Cooperative Style (Teacher)

Coaches opting for a cooperative style of leadership make decisions together with their dancers. They are aware of their responsibility of leading the team while realizing that young people cannot become responsible adults without learning to make decisions themselves. The purpose of this coaching style is to create a certain balance between leading the dancers and allowing them the possibility to control themselves. Cooperative coaches work together with the dancers in the creation of final decisions. A dance coach applying this style of leadership issues commands only when necessary and knows when to allow dancers to make decisions and take responsibilities. Dancers willing to perform well have to cope with outside pressures, adapt to constantly changing

situations, follow the progress of the competition, be responsible and concentrate. These qualities of the dancers are created and developed by a cooperative coach. Such an approach of the coach helps to build an open relationship among them and the dancers, enhancing communication and motivation. Dancers are motivated by the pursuit of personal satisfaction rather than by the fear of the coach.

The personality of the coach is the result of innate individual predispositions, various external influences affecting the coach in their daily activities as well as their background and work conditions. Every dance coach should strive to become a true personality through his conduct.

Management, content and access to training in DanceSport is mainly influenced by the type of dance – Standard or Latin, performance and especially the age of the dancers. This means that coaches have to be very sensitive and considerate during the training process.

An optimal coach for leading the training process of children and youth utilizes the cooperative / teacher style of coaching, since the training process of children and youth must respect developmental specifics, be based on versatile and harmonious development, and be forward-looking. These requirements place high demands on both the general and special education of the coach, especially on their knowledge of psychology. A DanceSport coach of children and youth should be a role model to follow in all aspects. In addition to providing education, the coach should understand children and young people, be patient, responsible and focus their activities on the future of their pupils. Their primary effort should be engaging children and youth in DanceSport and developing their mental capabilities, which must be repeatedly proven in difficult circumstances, through a systematic training load. The DanceSport coach should focus primarily on the self-education of the dancers by training or competitive motivation. They should have the ability to readily adapt the content and form of the training to the particular situation by choosing the proper topic for the current state of the dancer. Usually it is the mental state of the dancer which proves problematic,

for instance by being no longer able to receive new information provided during the technical training.

A suitable solution for the coach is to quickly switch to another form of training, for example to focus on the condition component or to repeat the movement activity in a playful way. Motivation is an essential prerequisite for the training and competitions of children and youth. It is important to awake an active attitude, determination and a clear goal in the dancer in order to fulfil the given movement tasks. A parent can also motivate, for instance by awarding the child points or placement prizes. However, it is usually the coach whose attitude proves to be the most motivating.

In puberty and adolescence, it is advisable for the coach to choose the role of coach – friend. It is not advisable to attempt to enforce commands and orders on the dancers, since a good coach is able to maintain the respect and activity of the dancers merely by applying their natural approach. It is important for the coach to express their comments or remarks sensitively and carefully when dealing with adolescents, because young people at this age are especially sensitive to any remarks concerning their behaviour or body. Furthermore, it is essential to emphasize relationships within a group of dancers and to treat everyone in an equally open manner. It is useful to establish a relationship with each individual. After this period, the dancer should be mentally stable and have a balanced relation towards their own body and the opposite sex. If the coach approaches the dancers in a constructive manner and both maintains and demands mutual respect, they positively affect both the sports results as well as the psychological well-being of the team.

10.1 THE PHILOSOPHY OF THE COACH IN DANCESPORT

Coaching in DanceSport is a challenging profession that forces coaches to make complex decisions and solve various interpersonal relationships, ethical disputes and problems. The proper philosophy of the coach facilitates their decision-making, relieves them of uncertainty about training principles, discipline, moral and ethical principles, short-term and long-term goals. Many coaches have become famous for their coaching philosophy. These coaches realized in time that the most effective way to achieve goals is to train in accordance with their own philosophy whether their surroundings agree with their distinctive approach to the training process and coaching philosophy or not. The quality of the philosophy of the coach and their decision-making are defined by their level of familiarity with the technique and tactics, their knowledge of the basics of DanceSport training and the management of DanceSport. The life philosophy of a coach has a significant impact on their way of coaching and training. The philosophy of dancer training has two main roles:

- The development of the self-esteem and self-awareness of the dancers;
- Setting training goals.

A coach wanting to help their dancers in getting to know themselves must be familiar with their own personality in the first place. If the coach is balanced and clear in their own life philosophy and philosophy of training, they can develop and pass on these qualities to others. If the dancers see their coach behaving reasonably and responsibly, they will probably attempt to behave in the same way.

Knowing their own personality with all its mistakes and deficiencies, can help the dancers to effectively overcome various conflicts and difficult situations. It is vital for the coach to apply their own philosophy. Accepting and adopting foreign philosophical principles normally leads to the failure and disappointment of coaches. Philosophy is much more than mere words, it is essential to apply them in deeds and practice.

10.2 THE GOALS OF THE COACH IN DANCESPORT

The goals of the DanceSport coach are based on three broadly defined factors:

- Coach dancers / couples with the aim of winning (DanceSport – top sport);
- Helping dancers to find fun and enjoyment in dancing (dance education, dance clubs, recreational sport);
- Helping dancers to improve their condition level, develop healthy habits and avoid injuries, teach them to control emotions, develop self-esteem and self-criticism, teach them the elements of team-work and appropriate social behaviour.

It is crucial for every DanceSport coach to know which goals are decisive and appropriate for their coaching work and what goals they want to achieve with the dancers. The goal of every dancer and coach should be winning in accordance with the existing rules. However, many excellent dancers and athletes claim that their best memories do not relate to the victory itself, but rather to the path that led to it: the months of sweat, hard work and fun. The dance coach should consider the coaching goals and the goals of sports training as well as their personal expectations in the process of formation of their own coaching philosophy:

- Why do they want to become a dance coach?
- Do they want to enhance the development of young people through dance?
- Do they want to coach for money, to prove their knowledge in DanceSport, to gain public recognition and / or even fame?
- Do they want to coach for social contact, love of dance, fun or travel or do they want to achieve a management position?

All of these goals, and many more, can be a personal reason for coaching; therefore, the coach should pick at least one. Successful coaches know

the differences between the goals of their dancers and their own personal goals. All coaches strive to achieve the three essential goals of DanceSport training: to have winning dancers / couples, to allow young people to find enjoyment, entertainment and the joy of victory in dance and to help their physical, mental and social development.

11 DANCESPORT IN THE CURRICULUM OF PHYSICAL AND SPORTS EDUCATION TEACHERS

Dance is one of the basic physical activities occurring in every society, nowadays even at the level of sports competitions. Dancing as such facilitates enjoyment, physical exercise and natural healing. It harmonizes the body and soul, exercises the whole body and helps to alleviate certain lifestyle diseases. It offers the individual an intense contact with themselves and their emotional experience. The challenges of dancing are primarily emotional.

Dance is one of the oldest forms of art and one of the most emotional means of improving an individual in terms of cultivation of movement. Its main means of expression is the movement of the human body. Through the full range of movements, one can express the fierceness of human passions or tenderness in a manner in which no other art can. Dance at a certain level expresses the plasticity of the movement of the human body, leading to its graceful and proper holding and aesthetically impressive movement. Many subjects are closely linked to dance, such as sports, games, physical education, which is rhythmic in the first place. Furthermore, dance also contains many signs of playfulness, explosiveness and strength.

DanceSport in its recreational form is an excellent aerobic exercise involving the whole body. It reduces body weight, improves the overall posture, helps reducing stress and enhances circulation and breathing. The accompanying music energizes the dancer who is thus able to achieve more than during a regular aerobic exercise.

At the Faculty of Physical Education and Sport of Comenius University in Bratislava, dance is included in the curriculum of courses for future pedagogues of physical and sports education. Apart from folk dance, DanceSport, modern dance and rock'n'roll have been taught here since 2005. This model has also been used for instance at University of Zagreb, Faculty of Kinesiology.

DanceSport classes at the Faculty of Physical Education and Sport of Comenius University in Bratislava are rather popular, perhaps surprisingly,

among both sexes. Latin American and Standard dances can be found as part of the curricula of the following courses: Dance (compulsory course); DanceSport – Latin American dances and DanceSport – Ballroom dances (optional courses); as well as within the following specializations: DanceSport, Acrobatic Rock and Roll, Modern Dance and Folk Dance. Latin American and Standard dances have recently been rather popular, especially due to the Let's Dance television programme broadcast in Slovakia as well as in a number of other countries. Both the younger and the older generations have been showing an increasing interest in DanceSport. In an attempt to utilize this interest properly, we have been including some of the Latin American and Standard dances in the study programmes of future teachers of physical and sports education. In the current transformation process, we strive to innovate the curriculum in order to include dance in primary and secondary school physical education. After several personal consultations with teachers of physical and sports education, we have come to the conclusion that they welcome such an initiative.

DanceSport can be a refreshing change to the everyday physical and sports education lessons due to its content and structure. Certain dance steps and figures, appropriately scheduled at the beginning or end of the lesson, can engage and motivate the pupils. However, a too intense load may influence the functional indicators of pupils (Chren 2007).

One of the numerous contributions of teaching DanceSport at primary and secondary schools is the pupils' and students' natural acquiring of a cultivated conduct which they often lack: their mutual communication as well as their communication with teachers is often indecorous and vulgar.

DanceSport equally affects both the physical performance and the personality of the dancer. As mentioned above, DanceSport greatly enhances proper posture. Furthermore, dance, unlike many other sports disciplines, also requires the dancers to look good during their performances. Every single dance figure demands a proper posture, the engagement of the right muscles and a proper positioning of the head against the body: in other words, a correct

positioning of the body and its individual segments in a mutual relation (Špánik 2009).

In my opinion, DanceSport classes are suitable for older pupils and students, preferably those of the 5th – 12th grade and University students. At these ages they are already familiar with the basics of movement and music training, which is vital, since the awareness of one's own body and its individual parts are equally important in dance.

Responsibly and effectively planned lessons of Latin American and Standard dances can be a refreshing contribution to the average physical and sports education curriculum while placing a relevant load on the body (Chren 2005) since DanceSport has the same demands on active dancers as any other top performance sport disciplines.

Many physical education classes at elementary schools are nowadays held in so-called movement studios, where the students perform exercises in accordance with recordings of various aerobics exercises performed by celebrities. While this method is effective at first, it becomes unappealing and stereotypical after a number of repetitions. It is therefore highly encouraged to include a number of movement skills in the curriculum, utilizing simple basic steps and variations of Latin American and Standard dances. However, such an approach requires extraordinary planning and a specialization of the teacher.

Many students of physical and sports education are sportspersons who have spent their youth in gyms or sports grounds with no dance education whatsoever. Most of them are thus not familiar with any movement activities connected to music; furthermore, musical education classes have not provided them with proper knowledge of music theory. Therefore, we attempt to provide students of dance classes with basic information about music and movement theory in order to create proper predispositions for a successful implementation of more advanced knowledge and skills (Klárová 1997). We put a specific emphasis on the didactics of the curriculum in order to achieve a correspondence of its content with the ISCED 2 and ISCED 3 frameworks for grades 5 – 12.

DanceSport classes are mainly based on music and movement education. However, methods and forms applied to achieve the expected outcome may vary,

depending on two primary factors: the teacher and the student. The personality, creative abilities and musical education of the teacher are decisive: if the teacher does not understand music enough to choose the appropriate pace for the dance, recognize the pulsation of bars and begin the dance at the proper beat, they cannot successfully teach this kind of dance. In the meantime, the teacher needs to respect the abilities of the students in accordance with their age, basic knowledge of music and movement and sex.

Various researches conducted in primary and secondary schools have shown that the subject of dance is more popular among the female students.

We use individual basic steps and figures of Latin American dances such as Samba, Cha Cha and Jive and Standard dances Waltz and Viennese Waltz in order to engage the students as much as possible.

The approach of students to classes including Latin American and Standard dances depends on the teacher's relationship and approach to the subject itself. Not every teacher is willing to and / or able to include these dances in their curriculum since they have no personal relation towards them. We should not even discuss any possible unattractiveness of dance lessons, since only a teacher can make them unattractive.

Applying DanceSport in lessons of physical education and sports in accordance with the rules of aesthetics and art can make a significant contribution to reaching a higher level and effectiveness of the educational process. One of the specifics of teaching DanceSport, and dancing in general, is the constant presence of music in the teaching process. Music significantly contributes to motivation and evokes movement.

Dance lessons require appropriate organization and forms of work, equipment, teacher training and an interest of the pupils in the given activity. It is necessary to emphasize the unity of movement with music, its character and dynamics at every lesson. A good pedagogue is clearly committed to their occupation, systematic, purposeful, and persevering has a sensitive approach towards children and the youth and can thus make a highly positive contribution to their personal development. As a result of such lessons, students gain a healthy self-esteem, reasonable ambitiousness, self-control, as well

as a certain temper and full-fledged joy of movement. Last but not least, these efforts also contribute to the proper posture of pupils and students. They can thus release unnecessary tension, become able to control their body in simple step figures and spontaneously express their inner feelings by moving their own body and, in further stages, by dancing. They acquire a sense of freedom hidden in the combination of dance and music.

The goals of classes including DanceSport are the following:

- Awaken the interest of the students and pupils in Latin American and Standard dances and improve their overall relation towards dance.
- Basic education in music theory in order to obey the elementary rules when moving in accordance with a certain musical accompaniment.
- Acquiring the techniques of the basic steps and figures of Samba, Cha Cha, Jive, Waltz and Viennese Waltz.
- Combining individual basic figures into a short choreography consistent with the accompanying music.
- Leading students to an aesthetically impressive movement expression, as well as to the development of creativity and a sense of aesthetics.
- Stress relief, improvement of circulation and breathing.
- Improving the general condition of all body parts, especially aerobic and anaerobic endurance, movement coordination, joint mobility, as well as improving body posture and rhythmic abilities.
- High-quality theoretical and practical preparedness of students of physical education and sports to teach Latin American and Standard dances.

11.1 DANCESPORT IN THE CURRICULUM PROCESS

During the first lessons of teaching individual dances, the teacher needs to focus on rhythmic exercises and alternate exercises aimed at mobility development with the training of simple dance movements and the basic steps of the dance. A dance lesson should consist of three basic stages:

- **Warm-up;**
- **Acquiring new movements, figures and variations;**
- **Perfecting and repeating the acquired movements, figures and variations.**

The process of acquiring new movement habits takes place in three phases:

- Creation of movement idea;
- Movement training;
- Automatization of practised movement.

Creating an idea of movement is the basic stage of the process and depends not only on the clarity of the explanation and demonstration of the given movement task, but also on the interest, effort and will of the student to master the practised movement. It is therefore vital to motivate pupils before practice. A demonstration of a new figure or basic step should always be accompanied by a brief and illustrative explanation for an easier understanding of the movement task. The explanation should be based on expressions and motion images already known to the pupil.

Movement practice is the next phase after creating the idea of movement. In the first attempts to master a new movement, it is vital to draw the attention of the students to the main, essential parts of the practised movements and not to distract them with too many details. If most pupils perform the same error, it means that the movement has been interpreted or presented incorrectly or not

understood properly by the students. In such a case, it is necessary to interrupt the training and explain the movement again before further practice.

An important requirement at this stage is that the teacher teaches all movements correctly and precisely right from the beginning: after exercise tasks change into movement habits, it is very difficult to correct them due to movement fixation. Movement practice is the most important stage of the learning process.

Automatization of the practiced movement is conducted by numerous repetitions, refinement and exercise, gradually adding variation and difficulty to the movement task.

Apart from being familiar with the individual phases, it is vital that the teacher of DanceSport understands various teaching methods – ways of practicing while creating movement habits. Methodology can also be viewed as a sequence of steps created to achieve the desired goal – acquiring and mastering the given dance, figure, movement or movement habits and skills, as well as developing and improving the knowledge and skills of DanceSport. The sequence is based on the principles of:

- Proceeding from simple to more difficult tasks;
- Proceeding from familiar to yet unknown tasks;
- Elimination of natural and instinctive errors.

The following **teaching methods** are applied in the teaching process:

The complex method requires the student to attempt to undertake the entire movement task (new dance step, new figure) at once right after familiarizing themselves with its concept. This method is applied with simple exercise tasks when the teacher assumes that the students can handle it.

The analogical method is based on a skilful application of analogical forms – similar dance figures or similar movements utilized in different dances.

The method of contrast is suitable for more advanced students. It utilizes the contrasts of good vs. bad / correct vs. incorrect performance of a given figure,

step or partial movement to explain the principle of proper / purposeful conduction.

The analytical-synthetic method is created by splitting a certain movement task to smaller units which are taught separately. We proceed to the conduction of the whole movement by a gradual joining of its individual parts if the movement mechanics permits such an approach.

The repetition method, based on a frequent repetition of the acquired movement tasks, is vital in order to allow for the necessary coordinational and functional changes in the organisms of the students. Frequent repetition leads to a faster automatization of the practised movements due to a more frequent influence of the new stimuli. Furthermore, the quality of a movement habit depends on the gradual and planned refinement of a certain exercise task just as much as on its frequent repetition.

The mere knowledge of teaching methods does not automatically guarantee the quality of coaching: the teacher must be familiar with the technique of the movement as well as the possible problems occurring during the practise of a particular movement shape or figure. The technique needs to be understood as the primary factor determining the methods of training. An incorrect knowledge of the technique of dance steps and shapes promotes the fixation of improper movement habits of poor quality, which may lead to a dislike and disinterest of the pupils in the given form of entertainment and in DanceSport as such (Komora 1987).

11.2 DIDACTICS OF THE TRAINING OF INDIVIDUAL DANCES

In many cases half of the success lies in a successful start in the form of a proper motivation. If the student feels that dance is something they could never master, they need to break this barrier. We advise the students to begin with the easiest task of listening to music, since many students do not perceive the rhythm of the accompanying music for a long time. They often master the dance steps quite well, but have difficulties synchronizing them with music; we often observe that students have troubles with rhythm, which is just an inability to listen to a music recording properly. Individual dances can be practiced in two ways:

- Counting while acquiring the movement tasks; the students thus do not miss music nor get the feeling that music is “elsewhere”.
- Synchronizing movement and music. At this stage, it is important that the students improve their sense of rhythm with separate rhythmic exercises. Frequent repetitions of simple figures with accompanying music together with the teacher often help combating the problems of students concerning rhythm.

Listening to Music

Understanding what music or a dance recording mean to the particular student is an important step in the process of mastering any dance techniques. It is necessary to emphasize that many students are afraid of dancing because they do not understand music and do not know that the accompanying music is supposed to be the basic guideline of the dancer. Therefore, the teacher needs to draw the attention of the dancers to the rhythm of the music. It is desirable to choose pieces of music with a clearly distinguishable rhythm, such as marches, Rock'n'roll, Waltz or Disco. The students can express the rhythm of the music by:

- Counting;
- Clapping;
- Stamping.

The following is an example of practising Waltz with a clearly distinguishable 1,2,3 / 1,2,3 / 1,2,3 rhythm:

- The students count (clap, stamp) the first beat of each bar;
- The students count (clap, stamp) the second beat of each bar;
- The students count (clap, stamp) the third beat of each bar;
- The students count (clap, stamp) the first, second and third beat of each bar;
- The students are divided into three groups:
 - The first group claps the first beat;
 - The second group claps the second beat;
 - The third group claps the third beat.
- The previous example is repeated while substituting clapping by stamping.

The tasks are considered to be fulfilled when one strong clap (stamp) can be heard every time instead of a longer blurred one.

General Notes Concerning Dance Training

Since a good presentation plays a vital role in training, it is essential that the teacher – pedagogue can properly perform the individual dances. The observation of the following methodical guidelines is recommended when practising figures or whole dances:

- The teacher performs a presentation of the given dance or figure; the presentation should be impeccable in order to provide the students with a realistic idea of the dance.
- The training of the dance itself: teaching the movements and variations of the particular dance.
- The teacher counts the beats without using accompanying music during the initial stages of the training.
- In the next stage the students practice with accompanying music supplemented by the teacher's counting of beats.
- The teacher corrects errors occurring among the majority of the students.
- Another round of practice with counting.

- If the errors were not eliminated, the teacher should perform another presentation of the dance or movement, accentuating the error conducted by the majority of students.
- Less serious errors are corrected.
- The students dance to the accompanying music, frequently repeating the movement and creating a set of figures which can be repeated in order to get a chance to properly acquire the dance.
- The teacher must use words and phrases which the students can clearly understand.
- The teacher has to give clear signals before the beginning of the movement / dance – for instance loudly counting one bar before the beginning of the movement / dance – so the students can begin dancing with confidence.
- Correction and praise are equally important: the students need to be assured that their movements are correct.
- Corrections need to be provided calmly, in a group, preferably without pointing at a particular person performing the error.

The Position of the Couple

Position is understood as the mutual position of the male and female dancer. The following positions are used in this textbook:

- Basic position: the man (boy) and woman (girl) stand facing each other; their distance is established later.
- Outside position: the hips of the dancers are next to each other. If the right hip of the man (boy) is next to the left hip of the woman (girl), we are talking about the outside right position; if the woman (girl) is on the left side of the man (boy), the position is outside left.

Dance Hold

Dance hold is the way in which the partners hold each other. There are several holds in DanceSport:

- Basic hold: the man holds the right hand of the woman with his left hand roughly at the level of the woman's head; the man's right hand is on the back of the woman, the left hand of the woman is on the shoulder or arm of the man.
- Double hold (two-hand hold): the partners hold both hands; the right hand holds the left hand of the partner and vice versa.
- One-hand hold: the man holds one hand of the woman using one of his hands; we always need to specify which one.

The Importance of Dance Terminology

We use a lot of technical terms in most chapters of this book, which are essential for all specialized texts. Similarly, a teacher must always use a clear terminology commonly used in his field and the students must understand their interpretation. A proper grasp of dance terminology allows the following:

- Correctly describe all movements that need to be recorded in writing.
- Properly understand the movement or figure described in the text or named by someone.
- Create the right movement idea.
- Familiarize oneself with scientific literature on the subject as well as with the description of figures and variations, with new and less common movements and figures or figures which are currently not used.
- Record one's own work, create new links, new figures or describe an entire choreography.

From a methodological point of view, it is wise to start with the easiest dances and the ones in which the students are currently the most interested. In our case, it can be, for instance, Latin American dances characterized by a relaxed

approach and the possibility to dance individually, in couples or in groups. Winning a collective for spontaneous dance training is a significant achievement in itself; it is mainly boys who refuse dance as something irrelevant.

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