Contemporary dance as a component of students’ physical education

Today in the modern world the basic human need for the development of one’s own body and keeping it healthy and fit is a topical issue. Health is one of the most important prerequisites for harmonious, full-fledged life and personal self-realization. And it is precisely physical education that is aimed at the formation of a healthy, physically complete personality and the functional improvement of the organism.

Dance is an integral part of a human plastic culture. Raising of the dance-plastic culture begins with the learning about and development of the musculoskeletal system of a dancer. And, first of all, students need to learn to perform the simplest dance exercises and movements.

The goal of the article is to consider contemporary dance techniques as a component of students’ physical education.

At various times dance attracted the attention of many researchers as a complex, cultural and multifunctional phenomenon and an object of scientific researches. Art, as a mechanism of influence on a person, and the culture of physicality are topical from the period of ancient Greece and until now. In the process of professional training, future choreographers
are mastering a large number of movements and exercises, which have diverse execution specifics and require various levels of physical strain. The majority of existing activities with students-choreographers are aimed at the practicing of technical dance material.

Our professional practical experience allows us to state that the following basic principles of bodywork and movement organization are distinguished in the contemporary dance techniques: breathing, breathing and movement connection; anatomically determined work of bones, joints and muscles; work with the center of gravity, body weight, gravity; work with time and space. But this dance is not only about the technical movements of the body. It becomes possible only provided that such of its components are manifested: the mechanical motion on the one hand, and the conscious movement on the other. The usage of somatic and release techniques in contemporary dance allows students to integrate their consciousness and body through movement, while learning the skills of listening to and understanding their bodies, re-discovering their feelings, sensations, emotions and their nature.

Somatic techniques work with the body and mind as with a single whole. This allows a student to display various aspects of the capabilities of the body, which acquires the ability to perform the subtlest movements. However, this becomes possible only under the condition that both movements and personal feelings are the subject of close attention. Learning to be attentive to the body and to act with a minimal effort, a dancer finds out that the mind begins to cooperate with the body, taking its wisdom into account, and the body begins to function better.

If we are to describe briefly what the contemporary dance technique (post-postmodern) is, in our understanding, then it is the technique based on the natural laws of the body functioning about the organization of movement and breathing. Muscles’ release from excessive tension and the activation of the faction level in movement organization, the natural anatomical work of joints and their strengthening, the structure of the body interrelations and understanding of the qualitative characteristics of movement - all of the abovementioned should precede the mastery of technical dance material (the study of parter techniques, the techniques of fall and counter balance, etc.) as a conscious physical training of a student for further mastering of professional disciplines.

Usually people do not associate stress and overload with the state of their muscles, but this connection exists and manifests itself in a certain chaos in the muscular system: some muscles are involuntarily
disconnected, others are involuntarily overstrained. Psychophysiological excessive tension in the muscle groups of the shoulder girdle is dangerous, but quite common. Excessive tension in these muscles disturbs the state of the circulatory system, which impedes the functioning of the heart, the lungs and the brain.

Given that stress is not the situation in which a person gets into, but the reaction to this situation, it should be noted that, when training a body in a certain way, a modern person has a chance to remain healthy, able to work, to create her own life, filling it with the desired quality. And contemporary dance is exactly that opportunity.

In our work, we take into account a large number of parameters that should manifest themselves in almost every class. The observation during constant conscious personal bodily practice for over 25 years, as well as the experience of recovery after a rather complicated trauma (rupture of the anterior cruciate ligament of the right knee), allow us to make the following statement: on the one hand, everything that happens to us throughout life, all has an emotional coloring and psychological justification of some kind. On the other hand, all this happens at the same time at the level of the body, whether we are aware of it or not. As for the bodily traumatic experience, whatever the prerequisite for the occurrence of the injury, recovery should occur directly at the level of the body and the laws of its functioning. That is why a modern dancer should be knowledgeable about the body by the following parameters: how human movement is organized, structural peculiarities of the skeletal mobile zones (joints), the understanding what makes the body move in space, what is the center of the body gravity, how the movement of a person from the lower tier to the upper tier in space is organized, what is primary for understanding and training your body and why breathing is acknowledged as the number one item in teaching contemporary dance. And also, what fasciae are and why the experienced dancers-teachers talk so much about them during their classes, how the floor plays the role of a partner and allows you to feel the zones with excessive tension in the body during movement. What BF (Bartenieff Fundamentals) and LMA (Laban Movement Analysis) are, why and how active imagination can contribute to resources restoring and real physical renewal. And since all our personal stories have a manifestation of an imprint at the body level, or rather the muscular clamps and various kinds of excessive tension in the zones that provide our mobility, namely the joints, then exactly how the body-mind connection does occur. And also, how better
the inner personal space can be manifested outwardly and influence
the quality of the partner interaction. Why “look” and “see” are the
verbs essentially different in meaning. How the focus of attention or
the lack of it is maintained at the level of the body. What clearness and
the clarity of intentions are, and why so much time in the classroom is
devoted to the mastering of the “I-message” skill. And finally, where to
get inspiration, resource and how to to your development development of
the creative potential. How to act or to create naturally, remaining in the
understanding that there is no limit to perfection.

Thus, one should begin with the understanding of how body
movement is organized and the formation of the connected breathing skill.

As the experience of a huge number of ordinary people shows, there
is such a general tendency that, from an early childhood, movement,
which is free and expedient from the very beginning, eventually becomes
less expedient and free. There is a lot of unnecessary tension in organizing
even simple everyday movements. That is why it is important to remain
or return to the use of expedient movements, performed with the lowest
possible tension, to obtain the maximum efficiency. Such a trend of
modern dance as contemporary, is aimed precisely at this.

In other words, while mastering technical dance material, in the first
place it is necessary and important to form students’ understanding of
their body as the integral conscious system that feels and rationally uses
the resources of its own organism. What is needed first for this?

It is the formation of knowledge and practical skills, aimed at
realizing that the movement process has certain patterns. The upbringing
of the motional process based on physiologically grounded controlled
movements is the first link of this system. Natural movement protects
muscle groups from the use of excessive physical strength. The formation
of all motional actions based on expedient movements is the basis for
the creation of the phase of the highest physiological conductivity in the
mobility zones of the muscular sphere. This phase has a justification in the
work of N. Bernstein [2] and promotes the formation of a clear interaction
of all muscular structures in the human body.

The joints are actually these zones of mobility. The special attention of
choreographer students goes to hip, knee, shoulder, elbow joints and the
state of the spine in the lumbar and cervical sections.

As is well known, the physiology of activity establishes the three-
phase cycle of the movement process: action preparation, the particular
action and a release after the action. If the sequence of the cycle is
followed, there is an opportunity to learn quickly enough or consciously allow yourself to effectively manage your motor process. In doing so, the degree of the physical force usage is significantly reduced, which in turn allows consciously and clearly to regulate (to balance) the processes of tension and relaxation, which significantly reduces the possibility of involuntary overstrains in the muscle area.

The formation of self-regulation processes of muscle tension-relaxation is connected, first of all, with the identification of the exact boundaries in local muscle groups, within which these processes are counterbalanced. Local muscle groups around the joints act as such boundaries and, within the same boundaries, the tension is to be compensated.

Joints, as moveable bone connections, have various ranges of mobility. From large mobility in hip and shoulder areas too, in a certain way, limited one in a carpal joint and cervical spine. Also, the physical capabilities of muscle groups around joints vary a lot.

Hip joints have the strongest muscle groups around, that can withstand very big loading. They, together with the muscle groups of the pelvic part of the body, ensure the mobility of the upper part of the body and provide legs with the opportunity to move freely.

Knee joints have relatively strong muscle groups around. On the basis of knee joints flexion and extension, the power muscle level of the lower part of the body is formed.

Ankle joints can move in all directions, but they have a limited mobility amplitude and the muscle groups around are insufficiently strong and will require additional reinforcement with special exercises for dance performing.

Shoulder joints are the most mobile in the body, they have the greatest amplitude of mobility in all directions, the surrounding muscle groups are strong and they constantly interact with the muscle groups of shoulder-blades, which are the basis of the arm structure. Power muscle level of the upper part of the body is formed based on shoulder joints’ movements (in a circle).

Elbow joints have relatively strong muscle groups around, but active independent movement is contraindicated for them, and it should always be secondary.

Carpal joints are very mobile in all directions, but they have a significantly limited amplitude of mobility and relatively weak muscle groups around. Like elbow joints, they should not have independent isolated active movements.
The main joints of fingers are quite mobile, especially when bending. The mobility amplitude of middle and nail phalanges is much smaller. The muscles around the main finger joints are strong, allowing lightweight fingers to carry out necessary independent autonomous movements.

The thumb is the most moveable in all directions, the thumb base muscle is the strongest in the hand area. It is a lever of the hand power zone and the supporting point of the whole arm on a surface. The use of the thumb base optimal opportunities helps to prevent the muscle groups of a carpal joint from spontaneous excessive tension.

The spine is a chain of small joints, most of which are arthrodial. The most mobile are five vertebrae of the lumbar region and especially mobile are seven cervical ones. Mobile spinal sections are surrounded by the weakest muscle groups.

Joints cannot move independently, without a volitional command. When organizing movements in the area of each of the joints, two factors should be taken into consideration: the structural form of the joint and the direction of natural movement in the area of its mobility.

The aspherical or cylindrical form of a structure is typical for joints. That is why movements of the moving parts of the corpus in the area of any joint should be performed along circular or arcuate lines.

It is important to remember that muscle groups around each joint belong to the category of functioning differently. In most cases, they are flexors and extensors. Balanced harmonious development of each group is the key to an optimal functioning of the joint. Considering that physiological flexors are naturally more developed than extensors, in regular activities a person uses flexors more. And more attention should be paid to the extensor muscles in the process of comprehensive development of muscle groups around the joints. This is where the choice of exercises needs to be directed to and focus on when performing certain dance movements [5].

The skill of regulating “tension-relaxation” of necessary muscle groups during this or that movement is another basic point of contemporary dance. Mastering of this skill is boosted by the understanding of the diversity of functions performed by a spine and muscles (the function of a spine is to resist gravity; muscles function is to perform movement) and the conscious regulation of "tension-relaxation" of the corresponding muscle groups during movement.

Conscious relaxation is also an important component for a variety of jumps. Since a jump is performed due to the work of leg muscles, its
effectiveness needs to keep the muscles of the upper body free (relaxed). This is achieved when a dancer learns to consciously relax the necessary part of the body in a dormant state, remembering the sensations that arise at that moment.

Conscious relaxation and tension also play a significant role in performing movements on the floor (flying low technique), which are connected with keeping weight on the hands when the head moves from the upper level to the lower one or with turns when the body is “torn off” the floor. At the beginning of mastering these elements, as a rule, fear arises in students, which, in turn, creates a natural bodily reaction: excessive tension. Especially, this tension is apparent in forearm and shoulder muscles, that blocks the free action of elbow joints, as well as excessive tension in leg muscles affects the condition of knee joints and blocks them. Possessing the skill of conscious relaxation, a dancer can more quickly cope with the fear that arises, being aware of the body reactions and due to the ability to regulate them (to relax muscles, to engage joints) [3].

Hence, breathing plays an important role in the process of creating and controlling movement. Therefore, breathing regulation is an important aspect in the formation of awareness. In the process of new movements mastering, it is necessary to be tuned to a calm state, a comfortable rhythm of breathing, which retains its three phases. This makes for effective work, and with the help of deep breathing it is possible to consciously relax the parts of the body that are overstrained. Such practice helps to retain awareness and the focus of attention in the body, helps to perform exercises effectively. Fast, rhythmic or, on the contrary, slow movements, movements that involve hovering (jumps, supports) also require correct breathing and assist in the development of managing a breathing rhythm skill [4, p. 46-48]. The attention paid to breathing leads to the fact that the awareness of the importance of its regulation arises in the process of training. There comes an understanding that breath-holding and tension are inseparably linked. Therefore, when releasing breathing, deepening it, the dancer helps the body to become freer and more conscious. In the psychological aspect, awareness, the identification and regulation of breathing patterns assist in raising the awareness, identification and regulation of one’s emotional states. This, in turn, contributes to effective vital activity and the support of physical and mental health.

Virpi Yuntti, a fairly well-known contemporary dance teacher from Finland, usually gives the following description of her classes: “I do not teach any particular technique, my class consists of many various
techniques and dance skills, which I consider to be quite important, essential, plus the experience, received during my life.

I pay special attention to the “movement integrity”, that is, to the advantage of the whole body movement, all joints and the spine. Trying to create the “integral movement”, I cannot leave aside such issues as the origination of movement and the impulse that generates this movement.

The next issues of study will be: training the skill of integrating the movement into a single phrase and the correct use of breathing in this process, especially when strength and speed are needed.

I want to teach ergonomic, comfortable movement, but this does not mean that a technique or a composition is simplified.

The class begins with the warming up of all joints in the body, which facilitates the development of arms and legs coordination. Work on the floor is aimed at reducing the stress level and physical and mental tension.

The dance compositions, that I propose, study various ways of connecting and combining movements, change of dynamics, that is, strength and breathing.

I can promise the enhanced work of arms and legs, joints movements that are free and logical, the focus on balance, work with the floor (ability to use the benefits of working on the floor).”.

Alexandra Konnikova and Albert Albert (“POVSTANZE”, Moscow city) are the teachers of contemporary dance and improvisation techniques, who influenced my development as a choreographer and contemporary dance teacher. They usually offered to work during their classes with the technical dance material, consisting of a fusion of release technique, flying low, as well as other body and dance techniques, apprehended and transformed in the process of their regular dance and choreographic practice. During the classes, a lot of time and attention was paid to the development of skills of contact with the floor, the establishment and coordination of links between the body center and the limbs, the development of dynamics through relaxation and the use of natural principles of movement: breathing, weight inertia, spiral movement, etc. The idea of the economically lean, but effective use of the bodily structure evolved along with a self-awareness during movement.

As we can see from the classes description, without breathing it is impossible to function with due quality at the level of physical training (technical). It is important already at early stages to master the habit of breathing while doing improvisation and technical choreographic exercises. If you breathe freely and connectedly, it is possible to understand
how to make as little effort as possible, performing even fast movements, and to get the maximum efficiency almost without getting tired. Thus, with the help of breathing it is possible to dose out and control physical workout load [1].

It should be noted that during the first classes some students may feel dizzy, drowsy and be in a discomfort state due to the breathing restructuring, but these are logical and temporary phenomena.

Successful training of the breathing habit and mastering the connected breathing, the ability to dance, realizing that an inhale is followed by an exhale and not by breath-holding, and bringing this skill almost to automatism depends largely on the active, attentive and conscious attitude of students to the learning process and their understanding of the necessity for continuous personal development.

Thus, we can make the conclusion that the skill of "tension-relaxation" regulation of necessary muscle groups, when performing a particular movement, and mastering the connected breathing are important basic principles of contemporary dance and, at the same time, the components of high-quality physical training. The first technique is a transformation of purely muscle training into the training with conscious use of muscle relaxation and tension while performing exercises of various technical levels of complexity and dance combinations. The acquisition of this skill is facilitated with the awareness of the diversity of functions that the spine and muscles perform (the function of the spine is to oppose gravity; the muscles function is motion execution). It is also promoted with exercises, usually parter in nature, directed at practicing the "stress-relaxation" conscious regulation of the corresponding muscle groups during movement. Actually, along with this, there should be a process of connected breathing mastering by students. Consequently, the opportunity to dance, realizing that an inhale is necessarily followed by exhaling, rather than breath-holding, and the efficiently working body allow students to successfully master technical dance material in future remaining in the resourceful state and without being traumatized. Understanding and being aware of one's personal space, the space of dance, oneself in space and relationships with a partner are the following topics, which will require further consideration.
References:


Transliteration of References:


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Abstracts

MOWA LUDMYŁA. Współczesny taniec jako składnik edukacji fizycznej studentów. Dzisiaj we współczesnym świecie podstawowa ludzka potrzeba rozwoju własnego ciała i utrzymania jego zdrowia i kształtu jest kwestią aktualną. Jednym z najważniejszych warunków harmonii, pełnego życia, samorealizacji jednostki jest jej zdrowie. I to właśnie wychowanie fizyczne ma na celu stworzenie zdrowej, fizycznie pełnowartościowej osobowości, funkcjonalną poprawę organizmu. Taniec jest integralną częścią ludzkiej kultury plastycznej. Edukacja kultury tańczo-plastycznej rozpoczyna się od poznania i rozwoju układu mięśniowo-szkieletowego tancerza. Przede wszystkim studenci muszą nauczyć się jakościowo, anatomicznie poprawnie i świadomie wykonywać podstawowe ćwiczenia i ruchy taneczne. W naszym rozumieniu technika tańca współczesnego (post postmodernistyczna) to technika, która opiera się na naturalnych prawach funkcjonowania organizmu, dotyczących organizacji ruchu i oddychania. Uwolnienie mięśni od nadmiernego stresu i aktywacja powięziowym poziomu przy organizacji ruchu, naturalna anatomiczna praca stawów i ich wzmocnienie, struktura wziętych zależności ciała – wszystko to musi poprzedzać opanowanie technicznego materiału tańca, jako jakościowy trening fizyczny studenta do dalszego opanowania dyscyplin zawodowych. Właśnie dlatego, naszym zdaniem, współczesny student-tancerz musi być świadomy swojego ciała w kategoriach następujących parametrów: w jaki sposób zorganizowany jest ruch człowieka, osobliwości budowy poruszających części szkieletu (stawów), zrozumienie w jaki sposób ciało porusza się w przestrzeni, czym jest środek ciężkości ciała, w jaki sposób zorganizowane jest poruszanie się ciała z niższego do wyższego poziomu w przestrzeni, co jest podstawą do zrozumienia i wykonywania własnego ciała, i dlaczego właśnie oddychanie uznaje się za pierwszy punkt w nauczaniu tańca współczesnego, czym są powięzi i dlaczego tak wielu doświadczonych tancerzy-wykładowców o nich mówi na swoich zajęciach, jak podłoga pełni rolę partnera i umożliwia
poczuć strefy przeciążenia we własnym ciele podczas ruchu, czym są BF (Bartenieff Podstawy) i LMA (analiza ruchu według Labana) itp.

**Słowa kluczowe:** wychowanie fizyczne, technika tańca współczesnego, spójne oddychanie, zasady organizacji ruchu.

МОВА ЛЮДМИЛА. Сучасний танець як компонент фізич-ної освіти студентів. Сьогодні в сучасному світі базова людська потреба в розвитку власного тіла і підтримці його здоров’я та форми є актуальним питанням. Однією з найважливіших передумов гармонійності, повноцінного життя, самореалізації особистості є її здоров’я. І саме фізичне виховання спрямоване на формування здоров’я, фізично повноцінної особистості, функціональне удосконалення організму. Танець є невід’ємною частиною пластичної культури людини. Виховання танцюально-пластичної культури починається з пізнання і розвитку опорно-рухового апарату танцівника. І в першу чергу студентам необхідно навчитися якісно, анатомічно грамотно і свідомо виконувати базові танцювальні вправи і рухи. В нашому розумінні техніка сучасного танцю (пост постмодерна), це техніка основана на природніх законах функціонування тіла щодо організації руху та дихання. Звільнення м’язів від перенапруження та активізація фасціонного рівня при організації руху, природна анатомічна робота суглобів та їх зміцнення, будова взаємозв’язків тіла – все це має передувати основному руховому матеріалу, як якісна фізична підготовка студента для подальшого розвитку сучасного танцю. Саме тому, на наш погляд, сучасний студент-танцівник має бути обізнаним стосовно своєго тіла за наступними параметрами: як організований рух людини, особливості будови рухливих зон скелету (суглобів), розуміння завдання локусу та його розуміння в руху, як організується переміщення людини з нижнього до верхнього ярусу у просторі, що є первинним для розуміння і тренування власного тіла, і тому саме дихання визнають першим пунктом при навчанні сучасному танцю, що таке фасції і чому так важливо для них обговорювати анатомію та функціональне розуміння танцівника-викладача на своїх заняттях, як підлога, виконує роль партнера і дозволяє відчути зони перенапруження у власному тілі під час руху, що таке BF (основи Бартенієфф) та LMA (аналіз руху за Лабаном) та інш. 

**Ключові слова:** фізичне виховання, техніка "contemporary dance", зв’язне дихання, принципи організації руху.
МОВА ЛЮДМИЛА. Современный танец как компонент физического образования студентов. Сегодня в современном мире базовая человеческая потребность в развитии собственного тела и поддержке его здоровья и формы является актуальным вопросом. Одной из важнейших предпосылок гармоничности, полноценной жизни, самореализации личности является ее здоровье. И именно физическое воспитание направлено на формирование здорового, физически полноценной личности, функциональное совершенствование организма. Танец является неотъемлемой частью пластической культуры человека. Воспитание танцевально-пластической культуры начинается с познания и развития опорно-двигательного аппарата танцовщика. И в первую очередь студентам необходимо научиться качественно, анатомически грамотно и сознательно выполнять базовые танцевальные упражнения и движения. В нашем понимании техника современного танца (пост постмодерна), это техника основана на естественных законах функционирования тела, по организации движения и дыхания. Освобождение мышц от перенапряжения и активация фасциального уровня при организации движения, естественная анатомическая работа суставов и их укрепления, строение взаимосвязей тела - все это должно предшествовать освоению технического танцевально-материала, как качественная физическая подготовка студента для дальнейшего освоения специальных дисциплин. Именно поэому, на наш взгляд, современный студент-танцовщик должен быть осведомлен относительно своего тела по следующим параметрам: как организованное движение человека, особенности строения подвижных зон скелета (суставов), понимание благодаря чему происходит движение тела в пространстве, что такое центр тяжести тела, как организуется перемещения человека с нижнего до верхнего яруса в пространстве, что первично для понимания и тренировки собственного тела, и почему именно дыхания признают первым пунктом при обучении современному танцу, что такое фасции и почему так много о них говорят пейс дамы и танцовщики-преподаватели на своих занятиях, как пол, выполняет роль партнера и позволяет почувствовать зоны перенапряжения в собственном теле во время движения, что такое BF (основы Барте-нифф) и LMA (анализ движения за Лабаном) и др.

Ключевые слова: физическое воспитание, техника "contemporary dance", связное дыхание, принципы организации движения.
Contemporary dance as a component of students’ physical education. Today in the modern world the basic human need for the development of one’s own body and keeping it healthy and fit is a topical issue. Health is one of the most important prerequisites for harmonious, full-fledged life and personal self-realization. And it is precisely physical education that is aimed at the formation of a healthy, physically complete personality and the functional improvement of the organism. Dance is an integral part of a human plastic culture. The dance-plastic culture education begins with the knowledge and development of the musculoskeletal system of a dancer. First and foremost, students need to learn how to perform basic dance exercises and movements efficiently, anatomically competently and consciously. In our understanding, the contemporary dance technique (post-postmodern) is the technique based on the natural laws of the body functioning with regard to the organization of movement and breathing. Muscles’ release from excessive tension and the activation of the faction level in movement organization, the natural anatomical work of joints and their strengthening, the structure of the body interrelations - all of the abovementioned should precede the technical dance mastery as a high-quality physical training of a student for further mastering of professional disciplines. That is why, in our opinion, a modern student-dancer should be knowledgeable about the body by the following parameters: how human movement is organized, structural peculiarities of the skeletal mobile zones (joints), the understanding what makes the body move in space, what is the center of the body gravity, how the movement of a person from the lower tier to the upper tier in space is organized, what is primary for understanding and training your body and why breathing is acknowledged as the number one item in teaching contemporary dance, what are fasciae and why the experienced dancers-teachers talk so much about them during their classes, how the floor plays the role of a partner and allows you to feel the zones with excessive tension in your body during movement, what BF (Bartenieff Fundamentals) and LMA (Laban Movement Analysis) are and more.

Keywords: physical education, “contemporary dance” technique, connected breathing, principles of movement organization.