Effects Research for Posture Control Ability and Expressive Force of Classical Dance Art Based on Multi-Core Learning and Digital Art Analysis

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Abstract. Chinese classical dance originates from Chinese dance tradition, is based on traditional Chinese opera dance, integrates the dynamics of Chinese martial arts, draws lessons from and absorbs the beneficial elements of ballet and other foreign arts, and has a distinctive system of times and nationality. This time, the principle and characteristics of multi joint muscle group function are analyzed from the perspective of anatomy. The training of controlling dance posture of classical dance is the basic training that needs to be started from the junior college, which is also the basic ability required for controlling dance posture. With the increase of competitions and fierce competition, there will be more and more sports injuries. Although classical dance is dominated by chronic injuries, unscientific training methods, high-intensity training, and the inadaptability of the competition site are also the main reasons for sports injuries. Therefore, it is very important to find out the weak links of their own bodies to prevent sports injuries in advance. At present, the methods and means of classical dance training in my country are relatively simple. To improve performance and reduce sports injuries, training methods need to be improved. This paper starts with the characteristics of classical dancers' ability to control body posture, using experimental method, FMS test method, and classical dancers' bodies under static motion surface change conditions, unstable state, movement direction change condition, and unstable state. Posture control ability test the experimental group and the control group were carried out to conduct an experimental study on the body posture control ability of the athletes.

Key words: Classical dance; Posture control; Mental health; Digital art analysis
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1   INTRODUCTION

Chinese classical dance is a specific concept, which is a performance art accumulated in the long-term development of ancient Chinese art [6]. Chinese classical dance began with primitive folk entertainment and sacrifices. After entering the court, it was carefully cultivated by professional artists, and gradually formed a typical dynamic dance form. Later, it gained the performance and posture of opera, the momentum and strength of martial arts, and formed a delicate and delicate dance. The aesthetic characteristics of roundness, combination of rigidity and softness, blending of scenes, and combination of techniques [18]. In college dance teaching, the teaching of controlled dance of Chinese classical dance runs through it all the time, and the expressive training of controlled dance is a typical dance training in dance teaching [15]. Dance itself is a very elegant art, and at the same time it is a very common one in life. Dance performance needs strong expressive force and control ability to improve the performance quality and form a spiritual resonance with dance performance [11]. At present, the mental health problems of college students have been widely concerned by colleges and society. In order to maintain a stable and healthy development of College Students' psychology, many colleges and universities have taken some education and guidance measures. Such as: the establishment of counseling institutions for college students' psychological problems; Experts are specially invited to set up some courses of mental health education, hoping to effectively relieve the psychological pressure of college students and solve psychological problems.

The training composition of performance combination can be said to be a very complicated process, which can be divided into two levels, internal and external, in theory [2]. Its "outside" is from the level of action training and performance. It not only has the most basic single element of Chinese classical dance learning, but also has the short sentence training of trunk action training and load application of different trunk actions, as well as the simple expressive training of traditional combination [20]. This is not just as simple as completing an action, but to reflect the cultural connotation behind it through this action. Therefore, its training composition is a teaching link that requires a lot of foundation to complete [9]. In college education, the physical and mental health and artistic literacy of college students have become very important qualities, and the mental health education of college students has become an important part of quality education [14]. Under the pressure of heavy schoolwork, economy and interpersonal communication, if college students do not have healthy psychology, they are easy to have psychological obstacles and extreme emotions because of excessive mental pressure. Classical dance education in Colleges and universities can effectively relieve the pressure of college students, regulate their mood and reduce the occurrence of extreme psychological states [7]. Therefore, the classical dance course is closely related to the development of college students' mental health. Among many researches on human motion recognition, few universities or institutions study dance movements，The main reason is that dance is a way to express emotions to the public through body movements. It is more complex in the form of expression, and there are many kinds of movements. In different categories of dance movements, there are many dance movements with their own characteristics. It has been added to the article now. [10]. Therefore, the research on dance movements is still in the stage of dance movement analysis. In most cases, gesture analysis is performed on the collected dance movements, and then animation processing software is used to apply it to the performance of animated characters. It has been widely used in many fields such as intelligent monitoring, virtual reality, intelligent human-computer interaction, etc., and action recognition application cases. Functional training is mainly used for injury rehabilitation, and the mode tends to be individualized and specialized, which can make athletes reach their best state in the early stage of regular competition. Functional training is mainly divided into two modes: unarmed functional training and instrument functional training. In daily classical dance training, instrument functional training can stimulate the enthusiasm of classical dance athletes. However, due to the limitations of venues and equipment, unarmed functional training is simpler and widely used in training.

This paper analyzes the characteristics of different kinds of classical dance sports and the muscles used in their movements, and verifies the effect of this set of functional training methods on classical dance sports through experiments, changing the previous single training methods and modes, and providing theoretical and practical basis for the future functional training of classical dancers.

2   RELATED WORK

The basic ability of dance refers to the general term for the athletic ability under the influence of dance movements and the working state of muscles. In the teaching and training, flexibility training is the training content of the junior and middle classes, which is also an important indicator to evaluate the level of a dancer's ability. Achieving the coordinated development of flexibility and strength can better improve the effectiveness of dance training. Digital art analysis can be a valuable tool for understanding and analyzing classical dance art. By using digital technologies to examine and analyze dance performances, researchers and practitioners can gain new insights into the technical and artistic aspects of the art form.

Maheu believes that the essence of functional training is to find common characteristics from different sports [12]. Dipasquale s proposes that functional training includes proprioceptive training, balance training and auxiliary training without fixed equipment and touching the ground with feet, such as strength training in unstable state and training of various parts of the body [4]. Maheu thinks that functional training is a training method that emphasizes multi-orientation, multi-joints and proprioception. Function training is a brand-new sports training methods and theoretical system, which uses systematic optimization of sports mode, power chain, recovery and regeneration, core strength and other links to improve sports ability [13]. Belden A believes that the concept of functional training is rich in meaning, which includes functional strength, functional endurance, and functional speed. Through comprehensive functional training, athletes can find their own weak points, and then can improve them in a targeted manner [1] .Swain C et al. Extracted human motion shape information through Canny edge detection to represent motion edge information, and then matched similar edges to achieve the purpose of human motion recognition [17]. Donisi V et al. Changed the traditional separate training and sequential combination of attitude estimation and action recognition, and proposed a framework combining attitude estimation and action recognition. The accuracy of motion recognition has reached the first-class standard, and the attitude estimation has been improved [5]. Viktoria K B and others think that the improvement of teachers' literacy is the key to the rational and effective development of classical dance courses in colleges and universities, and they should be good at using various teaching methods and reasonably arranging teaching contents [19]. Cta et al. have studied the influence of classical dance on people. The results show that after a period of classical dance, more than one person feels cheerful, energetic and emotionally stable than before [3]. The research of Rowley K M et al. proposed that. "The influence of classical dance on psychological factors has two aspects: (1) the exercise of classical dance can make athletes have a good emotional and emotional experience; (2) learning and performing classical dance movement It can exercise people's will quality;" (3) Participating in classical dance is conducive to establishing a positive self-concept; (4) Classical dance can promote people's desire for communication, which is conducive to interpersonal communication. [16]. Imura a believes that the functional training of competitive sports is a training mode for the comprehensive development of body functions. Through the practice of multi joints, multi planes and multi body feelings, the body functions can adapt to the requirements of competitive sports in many aspects, such as coordination, flexibility and core strength [8].

To sum up, the concept of functional training is diverse and still in the exploratory stage. On the premise of reducing sports injuries, functional training is a high-quality exercise training according to the characteristics of sports events. At the same time, it improves the qualities of coordination,

balance and stability, and systematically optimizes the movement mode, sports chain, recovery and regeneration, so as to achieve the goal of improving the competitive level.

3   METHODOLOGY

3.1   Dance Action Recognition Based On Classical Dancer's Attitude Control

A dance action recognition method based on multi-feature fusion is proposed. The features we use here include: directional gradient histogram features to represent the local appearance and shape features of dance movements, optical flow direction histogram features to represent the movement information of dance movements, and audio features as auxiliary features to map different dance movements and reduce the impact of self-occlusion. These features describe dance action videos from different perspectives, so our different types of features can play a complementary role in dance action recognition.

3.1.1   A dance action recognition method based on feature fusion

In this paper, the linear weighted combination of multi-core learning method is used to fuse the directional gradient histogram features, optical flow directional histogram features and audio features to complement each other and improve the recognition ability of the classifier. The specific process is as follows: set a set of kernel functions for each feature, and each kernel function has a corresponding weight. Finally, combine multiple kernel functions in a linear weighted manner to form a new kernel function, and use a support vector machine classifier for multi class classification.

3.1.2   Measurement and evaluation method of dancing movements

- Measurement and evaluation of dance movements: test the strength and flexibility of the experimental subjects, and measure the basic data such as the height, weight and circumference of the experimental training subjects before training. At the same time, it is necessary to understand the subjective feelings of the trainees in the training process, and simultaneously obtain the main course teachers' observational evaluation of the training process and trainees.

- Determination of target muscles and training movements: Based on the analysis of anatomical dance postures, the target muscle groups can be further subdivided, and the corresponding antagonistic muscle groups and active muscle groups can be confirmed after different movement stages are determined. According to the exercise performance, the relationship between the use and the external torque can be used to determine the resistance direction, and then the resistance training exercise measures can be put forward. The second is to determine the active muscles, and according to the characteristics of active insufficiency of different joint muscles, the corresponding means of strength ability should be proposed.

3.2   Special Physical Quality Factors and Training Methods That Affect the Artistic Expression Of Classical Dance

Body posture can also be called body posture. Specifically, it is the state of various parts of the body at different stages during the training process. In each technical performance, there are three key postures, the preparation posture before the start of the movement, the posture during the performance and the ending posture. The anatomical analysis of controlled dance posture is to determine the target muscle of dance posture by using specific example analysis, and select some training actions from the training experiment.   Anatomical analysis can be divided into four steps, namely, description of movement requirements and determination of movement cycle, division of movement stages, result analysis and comprehensive evaluation of training experiment results. (1)

According to the four stages of anatomy, the dance posture of straight lifting of front legs is analyzed. The specific requirements of the movements are as follows: keep the upright posture of supporting legs, extend the knees forward, keep the whole body trunk in a tight state, and maintain the experience. (2) Straight leg dance; Then analyze the dancing posture of straight lifting side legs. The specific requirements of the action are: keep the supporting legs upright. Different from the dancing posture of straight lifting front legs, the action legs should be prepared side by side at the knee extension position to keep the whole trunk in a tight state. (3) The action requirements of the little goose-shooting dance are: the supporting leg should be kept upright, the action leg and the supporting leg should be crossed, the knee should be stretched obliquely behind the point, the trunk should be tightened after turning, and finally the hip joint should be stretched and the knee joint should be bent at the same angle, thus forming the goose-shooting dance of the whole trunk, and finally the falling point of the action leg should fall back.

At present, the motion recognition methods are mainly divided into two categories: single-layer method and hierarchical method. Single-layer-based methods usually regard actions as feature categories of videos, and use classifiers to identify actions in videos. Image sequences in videos are seen as being generated by specific action categories. Hierarchical methods mainly identify high-level actions by identifying simple actions or low-level atomic actions in the video. High-level complex actions can be decomposed into a sequence of sub-actions, and sub-actions can be decomposed as high-level actions until they are decomposed into atomic actions. As shown in Figure 1.
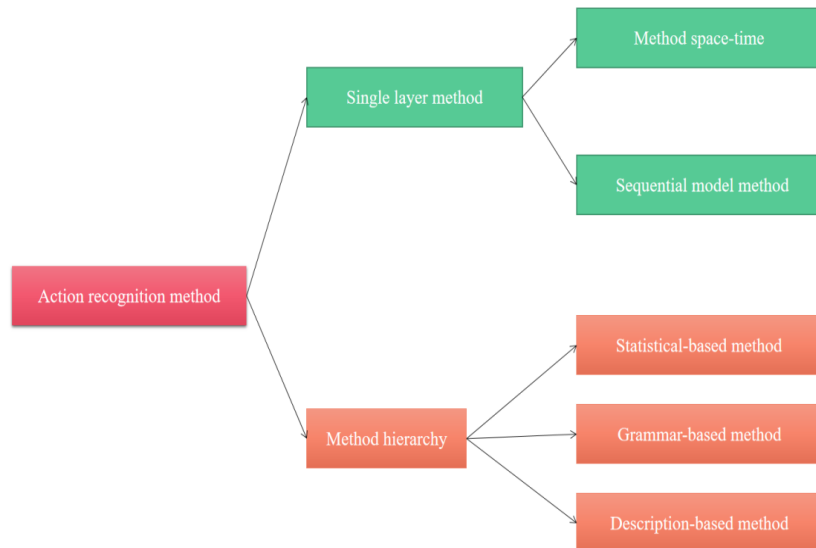

Figure 1: Classification of action recognition methods.

In each technical performance, there are three key postures, the preparation posture before the start of the movement, the posture during the performance and the ending posture. Preparation posture refers to the state in which the body is fully prepared before exercise. This state is called energy accumulation. The beginning of preparation posture is very important, and other actions are continued by it; In the performance process, there are various body postures. Because of the changes in the technical requirements and directions of movements, the body changes rapidly in the performance process. Only by controlling the postures can a perfect action performance be achieved. The ending posture is the key action. After the completion of the previous difficult action, it is necessary to unload the force and adjust the reaction state of each part of the body. The ending posture can also stabilize the center of gravity of the body, and adjust the unstable posture caused

by the previous action to ensure a stable response in time after the performance. Before and after the formal dance training, the experimental subjects were tested for strength ability and flexibility before and after the training. Before the training, the basic data such as the height, weight and circumference of the experimental training subjects should be measured clearly. The measurement method of flexibility is to measure the extension flexibility angle of the front leg, side leg and small shooting geese's hip joint. It is carried out once before and after the training, and the data before and after the training are compared. Generally, the people who carry out dance movement training are young, and most of them are in the stage of physiological development. In order to verify the effect of dance movement training on strength growth, the girth of waist, thigh and thigh can be measured respectively, so as to observe whether there is any change before and after training.

In this paper, the motion capture device is used to obtain the dance motion video, which contains the specific position of each joint in the human skeleton in the three-dimensional coordinate system. The sequence of all frames in the video is represented as $F = \{f_1, f_2, \cdots, f_n\}$, and the human body in each frame obtained by the motion capture device is composed of 39 joints. Considering the actual situation of dancing and the division of human body areas adopted in this paper, the upper body and lower body areas are considered when selecting the main joints, and the upper body joints include chest, shoulders, elbows, wrists and fingers. The lower body joints include hips, knees, ankles and toes, with a total of 19 joint points, of which one mark point is used on the chest; There are four mark points in front, back, left and right of hip; Other joints are two marked points. There are four marking points on the front, back, left and right of the hip; all other joints have two marking points. The human pose composed of joints is represented as $f_i = (p_1, p_2, \cdots, p_{19})$, i represents the position of the frame in the video, and the position of each joint point is represented by three-dimensional coordinates as:

$$p_j = (x_j, y_j, z_j), \{j | 1 \le j \le 19\}$$

(1)

3.3 Multi-Core Learning Method

Multi-core learning still belongs to the category of kernel method. The difference is that the main principle of multi-core learning is to use the combination of multiple kernel functions instead of a single kernel function. At present, the simplest way to combine multiple kernel functions is linear combination. Therefore, in multi-core learning, most of the established multi-core models form a new kernel function by linear combination of multiple kernel functions. The flow diagram of linear combination of multi-core functions is shown in Figure 2.

The linear kernel function representation is as follows:

$$k(x, z) = \sum_{j=1}^{M} \beta_j k_j(x, z), \beta_j \ge 0, \sum_{j=1}^{M} \beta_j = 1$$

(2)

2 where M represents the number of kernel functions, $k_j(x, z)$ is the kernel function, and β_j is the corresponding weight of the kernel function. $k(x, z)$ is determined by the correlation of features.

In order to make conform to Mercer's theorem, $\beta_j \ge 0$ is set. As for the solution method of semi definite programming, it is the first time to put multi-core learning into the convex optimization framework and solve the multi-core learning method through the classical optimization method. In this method, the author transforms the multi-core learning problem into a semi definite programming (SDP) problem to solve.
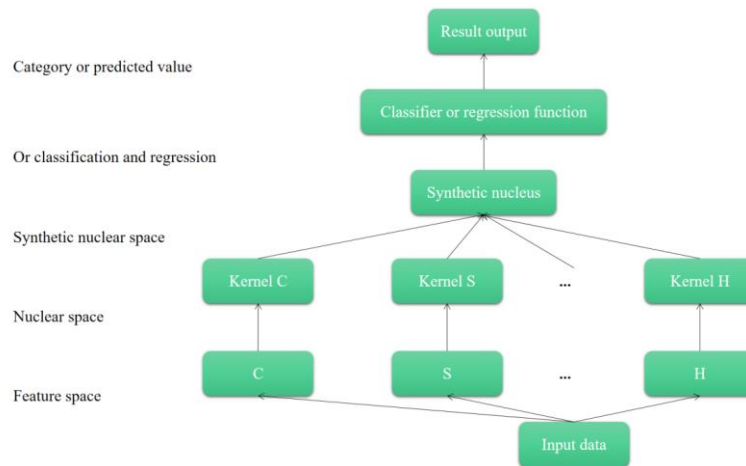
Figure 2: Schematic diagram of linear combination of multi-core learning kernel functions.

The specific formula is as follows:

$$\max_{a,t} -\frac{1}{2}t + \sum_t a_i \tag{3}$$

$$s.t. \; 0 \le a_i \le C, \sum_i a_i y_i = 0, \forall i \tag{4}$$

$$A$$

$$\sum_{i,j} a_i a_j y_t K_m(x_i, x_j) \le \frac{trK_m}{c} t, \forall m \tag{5}$$

The above formula is different from the traditional kernel function learning formula by adding a parameter T, which controls the weight of each function. The weight of kernel function and the parameters of classifier are solved simultaneously in optimization. This semi-positive definite programming problem can be solved by inner product method, so when the data set is too large or there are too many kernel functions, this method will be difficult to solve. For the solution method of second-order cone programming, Bach proposed the method of using weighted L1 norm to constrain the sub kernel function, and its form is as follows:

$$\min_{w,\xi,b,d} \frac{1}{2}\left[\sum_{m=1}^{q} d_m \|w_m\|_2 \right]^2 + C\sum_{i=1}^{n} \xi_i \tag{6}$$

$$s.t. y_i \left[\sum_m w_m^T x_{m,j} + b \right] \ge 1 - \xi_i, \forall i \tag{7}$$

L2 norm constraint ‖ w ‖ is used in each block, which makes each sub-kernel function similar to the support vector machine with L2 norm constraint. Therefore, SMO optimization algorithm can be used in optimization to speed up the optimization speed, but it can only deal with medium-scale problems. If the problem scale is too large or the kernel functions are too large, it will take too many iterations and consume a lot of computing resources. With the continuous application of multi-core learning, some scholars began to study the alternative optimization strategy to solve multi-core learning problems. The method based on alternating optimization is mainly divided into two steps: the first

step is to learn a single kernel function, first fix the weight of kernel function, and solve the parameters of SVM classifier; The second step is to fix the parameters of SVM classifier and calculate the new kernel weights. Based on an alternating optimization strategy, Sonnenburg transforms the multi-kernel learning problem into a semi-infinite linear programming problem (SILP).

$$\max_{d_m} \min_a \sum_{m=1}^{q} d_m \left[\frac{1}{2} \sum_i a_i y_i \phi_m(x_i) - \sum_i a_i \right] \tag{8}$$

Equation 8 can be solved by alternating optimization. In the process of solving, the author uses the tangent plane method to update the kernel function weights. The lower boundary of the tangent plane of each kernel function weight has the support vector machine classifier parameters calculated in the last iteration. Rakotomamonjy proposed simplemkl algorithm based on the idea of alternative optimization strategy. In this algorithm, gradient descent is used to update the weight of kernel function. At the same time, the author rewrites the objective function of multi-core learning:

$$\min_{f_m, b, \xi, d} \frac{1}{2} \sum_m \frac{1}{d_m} \|f_m\|_{H_m}^2 + C \sum_i \xi_i \tag{9}$$

$$s.t. y \sum_i \sum_m f_m(x_i) + y_i b \geq 1 - \xi_i \forall i \tag{10}$$

$$\xi_i \geq 0 \forall i, \sum_m d_m = 1, d_m \geq 0 \forall m \tag{11}$$

D_m Indicates the direction of gradient descent. When the kernel weight is updated each time, the optimal kernel weight can be quickly obtained by using linear search through appropriate search steps.

Considering that each kind of features has limited ability to distinguish dance movements, this paper adopts the linear weighted combination method in multi-core learning method to fuse directional gradient histogram features, optical flow direction histogram features and audio features to realize the mutual supplement of various features and improve the recognition ability of the classifier. Set a set of kernel functions for each feature respectively, and each kernel function has a corresponding weight. Finally, a number of kernel functions are combined together in a linear weighting way to form a new kernel function, and support vector machine classifier is used for multi-class classification. The multi-core learning feature fusion process is shown in Figure 3.

4 RESULT ANALYSIS AND DISCUSSION

The experimental samples are from the athletes of a classical dance team. In the academy team, 20 players with the same level of body posture control ability were selected as the subjects of this experiment. The contestants were divided into ten pairs, and every five pairs were divided into a group to complete the experiment through comparison and comparison. The content of the test is the ability to control the body posture. The two groups have their own division of labor. The first group does not participate in functional training, but does not interfere with their daily exercise. The second group participates in functional training, and plans to practice for ten weeks. After ten weeks, the members of the two groups will be tested for their physical posture control ability, and the test data will be sorted out. Through comparative analysis, the relevant evaluation of this functional training will be made.
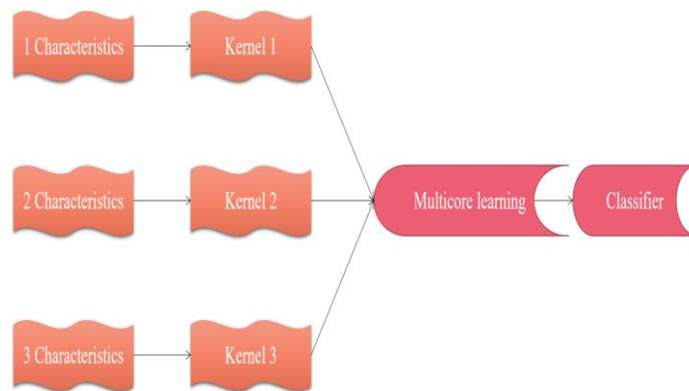
Figure 3: Schematic diagram of multi-core learning feature fusion process.

The specific experimental process is divided into three stages. In the first stage, it mainly focuses on low load. The basic training takes static as the core to prepare for the later stable posture. The time is two weeks; In the second stage, it mainly focuses on high load, adding dynamic training to static training, combining dynamic and static training, and adding elastic bands to improve the training intensity for four weeks; In the third stage, we will mainly carry out trunk exercises to exercise the muscle strength of athletes. We will use balance machinery to carry out specialized training, and appropriately carry out unstable state exercises to accelerate the improvement of the stability of members' trunk. The time is also four weeks. In this paper, after making the experimental plan, five experts and professors are selected to verify the experimental content, and the experimental plan is sent to the experts and professors, who will evaluate the effectiveness of the experimental plan. As shown in Table 1.

Number of experts	Effective	Common
5	5	0

Table 1: Validity test of test contents.

1.The first phase of the experimental plan and arrangement

In this stage, external stimulation is mainly used to exercise the internal muscles and motor nerves of the trainees. The training level is based on 80% of the maximum intensity that the trainees can bear. Under this light load condition, the accuracy of the trainees is continuously increased. After the accuracy reaches the standard value, a fixed movement training mode is added for repeated training. The athletes gradually adapt to external stimuli and make their movements more standardized. As shown in Table 2.

According to the natural conditions and social and economic development, only by choosing a reasonable urban expansion mode can we ensure the development of the city and keep the openness of the open space. In this paper, sparse representation and super-resolution reconstruction methods are used to visually recombine landscape ecological construction and spatial pattern optimization design, and interactive GA method is used to realize the fusion perception of urban ecological landscape information. In order to verify the effectiveness of this optimization algorithm, it is compared with other algorithms. In the experiment, different methods were used to solve the optimal value, and the experiment was run independently for 50 times. The iteration times and

running time of each evolutionary individual to find the optimal solution were recorded. The experimental results are shown in Table 2.

Weeks	Training content	Number of exercises (groups)	Required instruments
Monday	Small strength recovery training	4 Groups	Barbell, dumbbell, 30cm high platform
Tuesday	Agility and speed training	6 Groups	Rope ladder, obstacle, tape measure and marker
Wednesday	Muscular endurance	4 Groups	Barbell, broach, Kettlebell, cushion, stopwatch
Thursday	Core strength training	3 Groups	Cushion, stopwatch
Friday	Movement mode training	3 Groups	Hurdle frame, barbell piece

Table 2: Phase I functional training program.

In the back test, the testee is first required to lie flat and keep a supine posture. Secondly, his hands are required to hang down naturally, supported by his shoulders and one side of his foot. His thighs are bent at 90 degrees, his hips are tightened, and finally his other leg is raised, so that his body and the ground form an inclined plane. In this test, the testee is required to keep the posture unchanged for timing. This kind of support has high requirements for the center of gravity control and muscle stability of the testee. Therefore, the back bridge test is mainly a test of athletes' horizontal posture control ability.

From Figure 4, we can see that the scores of each student are counted, and the scores are mainly concentrated in the 13, 14, 15, 16, and 17 score segments. From Figure 4-1, it can be seen that there are 6 students with a total score of 13. 5, accounting for 30%; 5 with a total score of 14, accounting for 25%; 3 with a total score of 15, 16, and 17, accounting for 15% respectively. Studies have shown that students with a score below 14 are prone to injury, and other students whose scores are around 14 have little difference, all of which are at risk of injury. As shown in Figure 4.
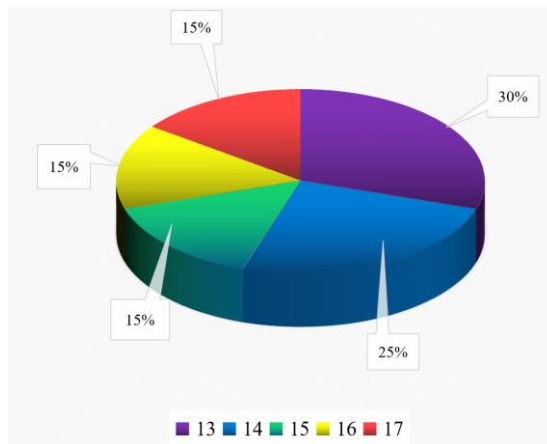

Figure 4: The total score of the FMS test in the experimental group before the experiment.

According to the actual situation, the change trend of human posture joint position is basically the same, and there are obvious changes at the beginning and end of the action. As shown in the figure below, the changes of human joints are chaotic at frame 700, that is, after that, and the changes cannot be accurately judged by the curves in the figure. It is necessary to obtain the concise change trend of the whole pose sequence through further calculation. The position change trend of 19 joint points in the human posture sequence is shown in Figure 5.
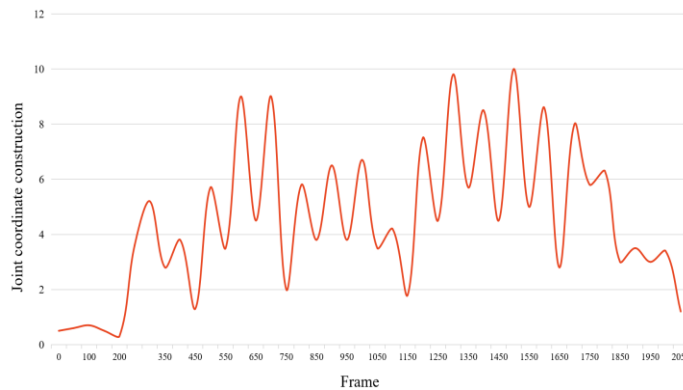

Figure 5: Average change trend of actors' continuous posture joints.

The total score of FMS test in the experimental group before the experiment. By comparing the changing trend of joint position in continuous frames with the posture of human body in video sequence frames, we can know that the wave crest corresponds to the obvious movement of human body posture, while the wave trough corresponds to the convergence of human body posture, while the gentle position in the early stage and the smooth position at the end of the image correspond to the data frames with no obvious change of human body posture. According to the actual situation, we can know that the actors are in the preparatory movement and the ending movement. Therefore, after finding each extreme value in the graph of the changing trend of consecutive frames. This paper uses the spline interpolation function to fit the curve. Firstly, the maximum value of the continuous frame change data in the video is obtained, and the upper envelope of the data sequence is fitted by cubic spline function, and then the lower envelope of the data sequence is fitted by cubic spline function. Finally, the mean value between the upper envelope and the lower envelope is calculated as the final fitting result of the current data series. The upper envelope, lower envelope and final result of curve fitting are shown in Figure 6, Figure 7 and figure 8 respectively.

After the fitting results are obtained, an obvious segmentation point between various dance movements in a dance video can be observed. Two adjacent minima can determine a simple action sequence, and the position of the minima represents the segmentation position of the action sequence frame. The fitted curve may still have inaccurate segmentation positions, so it is necessary to finally determine an action sequence by double control of the difference between the adjacent maximum and minimum values and the number of frames of the action sequence. According to the statistics of the actual situation of recorded dance, the dance movement is a rhythmic movement. In the process of data collection, the time is limited to about 10 seconds, about two eight-beat movements, and the video frame rate is 100 frames per second. It is impossible to finish a dance movement in the next second at normal speed.
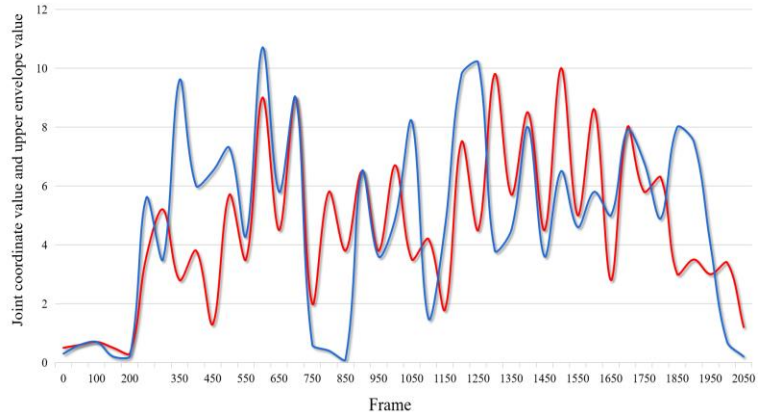
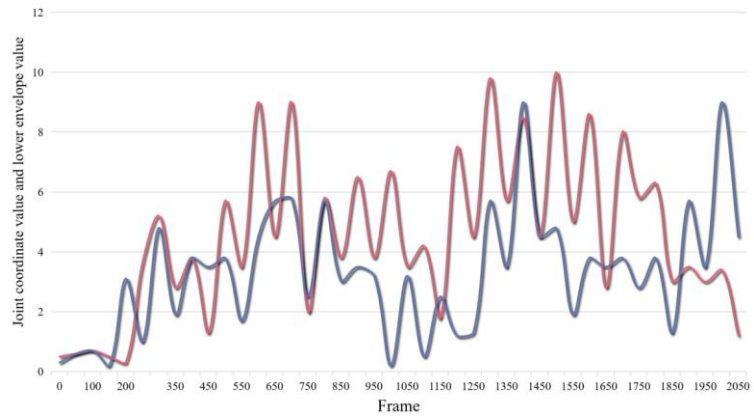**Figure 6:** Curve fitting result of envelope in the figure.

Figure 7: Small envelope curve fitting results.
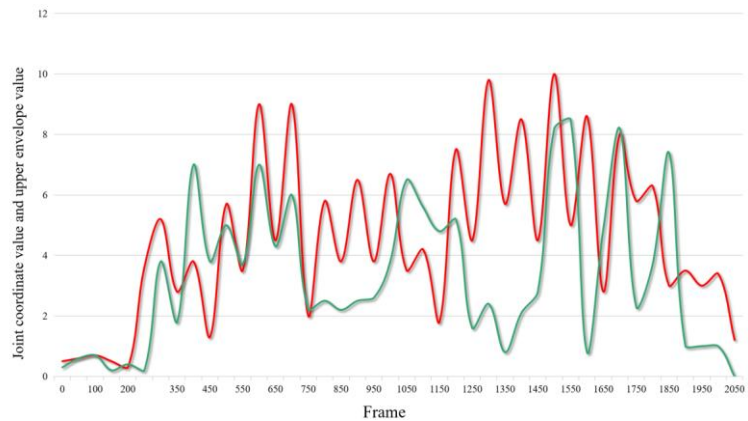

Figure 8: Final fitting result graph.

Among them, the smooth area of change can be clearly seen from the figure. In practical applications, it will be determined according to the difference between the maximum value and the minimum value. If the difference between the continuous maximum value and the minimum value is too small, it indicates an action. Not started or the action has ended.

5 CONCLUSIONS

To sum up, there are many performance factors in the dance performance. These performance factors interact to help the dance performance more successful. In particular, the breath, body movements and other aspects are important ways and means to improve the control ability and expressiveness of dance performers. The education of ordinary colleges and universities is in the initial stage of development. There is a lack of teachers for the courses, and the composition of personnel is complex. The composition of personnel structure is lack of professional professionals. This makes the arrangement of the performance group more traditional and ideological connotation of Chinese culture. At the same time, this is the fundamental feature that distinguishes it from other training groups to a certain extent, which reflects its significance, that is, taking emotional expression and cultural attributes as the starting point. As a special method of artistic quality education, training can be used as an effective auxiliary means for college students' mental health education. While enhancing aesthetic consciousness and artistic accomplishment, the inner world of college students is beautified, and positive and healthy psychological quality is gradually formed.

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