Hindawi Journal of Sensors Volume 2023, Article ID 9803430, 1 page https://doi.org/10.1155/2023/9803430



Retraction

Retracted: Role of Ballet Basic Skills Training Based on Multimedia Video in International Standard Dance Teaching

Journal of Sensors

Received 19 December 2023; Accepted 19 December 2023; Published 20 December 2023

Copyright © 2023 Journal of Sensors. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Manipulated or compromised peer review

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] S. Wang and S. Yeon-hee, "Role of Ballet Basic Skills Training Based on Multimedia Video in International Standard Dance Teaching," *Journal of Sensors*, vol. 2021, Article ID 4622251, 7 pages, 2021.

Hindawi Journal of Sensors Volume 2021, Article ID 4622251, 7 pages https://doi.org/10.1155/2021/4622251



Research Article

Role of Ballet Basic Skills Training Based on Multimedia Video in International Standard Dance Teaching

Shan Wang 10 and Seo Yeon-hee 10 2

¹College of Music and Dance, Guangzhou University, Guangzhou, 510006 Guangdong, China ²Woosuk University, Wanju-gun, Jeonbuk-do, 55338, Republic of Korea

Correspondence should be addressed to Seo Yeon-hee; syh@woosuk.ac.kr

Received 27 June 2021; Revised 11 September 2021; Accepted 22 September 2021; Published 15 December 2021

Academic Editor: Haibin Lv

Copyright © 2021 Shan Wang and Seo Yeon-hee. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Ballet and sports dance are also dance art from the west, which are popular among the Chinese people after they were introduced into China. With the popularization of compulsory education, people now like to let children learn all kinds of art skills. For instance, dance is very popular with parents, and then to the common development and promotion of career, we also realize that the development of online dance education and dance is more and more extensive pan. Through the introduction of ballet research, this paper explores the application of multimedia-based ballet basic skills training in international standard dance teaching. The research results can make dancers, especially beginners, truly understand the training value of ballet basic skills training and pay enough attention to this course. This paper uses the ways of literature analysis, experimental investigation, and multimedia ballet teaching text experiment to study the application of ballet in modern international standard dance teaching. It reflects the number of people learning ballet and learning motivation. Based on the extensive application of multimedia ballet basic skills training in international standard dance teaching, we can really understand the significance of ballet basic training for the whole dance teaching the value of learning. The experimental results show that 70% of ballet scholars believe that the basic skills training of ballet has a very high requirement on the body, and the motivation of learning ballet is also different. Dancers use the theoretical knowledge of dance science teaching and ballet basic training to make an overall connection, and multimedia video ballet basic skills training exercises the foundation in dance. It also plays an important role in the teaching of international standard dance.

1. Introduction

In the western countries of the 20th century, it has been widely influenced and developed. At that time, the famous German dancer Rudolf Laban created the "Laban dance score" with the concept of basic human skills training, which is now used. However, the popularity of dance art education in China is slightly lower than in other art categories. Dance is the first course to make the body, so understanding the body is the first step to learn ballet. The basis of the body's intellectual structure is the basis of learning dance, which is the best healing effect. Dancing means that teachers and students do not have to take part in dance courses without understanding the physiological structure of human body, so they are easily affected by big dance. In this way, not only

the future dance can be developed but also the body of the dance apprentice can be developed. Dance teaching is also some action with skills.

Ballet basic training originated in western countries, its system reflects the continuous improvement of Ba basic skills training factors. The basic training system widely used in dance teaching in China is also the basic training of ballet. Dance basic skills training is still a relatively young topic in China. Research at home and abroad has made great progress, how to better dance while avoiding hurting dancers and long life performance? At present, the exploration of modern dance artists in China is still at the macro level. I believe that when it comes to development, there will be more and more young people who are willing to learn ballet, the scale of exploration for dance will be larger and larger,

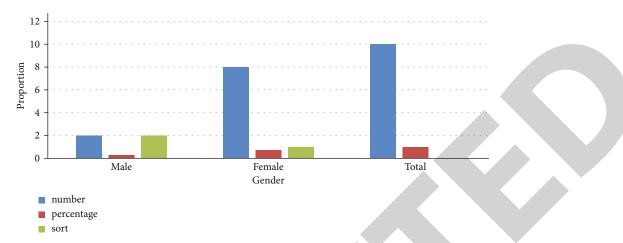


FIGURE 1: Sex distribution.

Table 1: Age distribution of multimedia ballet.

Age	Number	Percentage	Sort
Under 24 years old	15	25%	2
From 24 to 30 years old	25	57%%	1
From 31 to 35 years old	10	20%	3
36 to 40 years old	8	15%	4
41 years old and above	5	13%	5

Table 2: Learning motivation of ballet.

Serial number	Motivation
1	Strengthen bones
2	Increased joint flexibility
3	Heat consumption
4	Participation with family
5	Expand your social circle
6	Enhance cardiopulmonary function

and there will be more and more exploration methods. Of course, the depth of exploration will be more powerful. At present, the main point of dance is that the main science of ballet dance is a complete dance education.

In the context of the current international integration of basic skills training, dance and its surrounding disciplines develop harmoniously. The new training mode of basic dance skills is developing in the right direction. Hartati believes that multimedia representation has recently become a common method in many computer vision tasks. Lowrank representation is one of the most successful models for clustering based on the subspace structure of vector data. This paper discusses the possibility of extending the subspace data LRR on manifolds. Instead of embedding manifolds directly in symmetric matrix space, it establishes a local self-representation in the tangent space of each point, so as to obtain the local LRR method of manifolds, but there is still a lack of detailed explanation steps [1]. Taktaktak Kal-

lel believes that the study compares the effects of positive feedback and negative feedback on students' dance learning. Twenty-eight female students learned to perform the traditional Korean encouragement "open mouth" 60 times in two weeks. Half of the students get positive feedback in the learning stage, while the other half get negative feedback. Using Korean dance evaluation criteria, experts scored the students' performance three times: before the first class, after the last class, and after a week. In dance learning, positive feedback has more influence on the performance than negative feedback, but lack of specific data [2]. Lindberg M's critical assessment of the risk factors of musculoskeletal injury in dancers shows that there is a lack of high-quality reliability research. In all the assessments, the daytime average difference is less than the MDC, or there is sufficient consistency percentage. However, due to the broad 95% consensus limit, foot posture index and passive hip range of motion are not recommended for screening preprofessional dancers for injury risk. But the experimental results are not very accurate [3].

The innovation of this paper lies in the use of literature analysis, experimental investigation method to study the application of multimedia ballet basic skills training in international standard dance teaching. Through the experiment of multimedia ballet text, the quality of life of dancers can be improved, which can provide scientific basis for achieving higher goals and higher dance scientific research value.

2. Multimedia Ballet Basic Skills Training Methods

2.1. Development of Ballet. Many people are used to calling ballet noble dance. Indeed, when many people talk about ballet, the word "noble" will come to mind. The reason why ballet makes such an impression is that it is a unique form of entertainment for aristocrats [4]. The image created by dance gives people a sense of "nobility and elegance." Strictly according to the aesthetic standards of the court, the aesthetic standards of dance were formulated, and the dance movements were sorted and named, which has been continued to this day, and thus laid the foundation for the

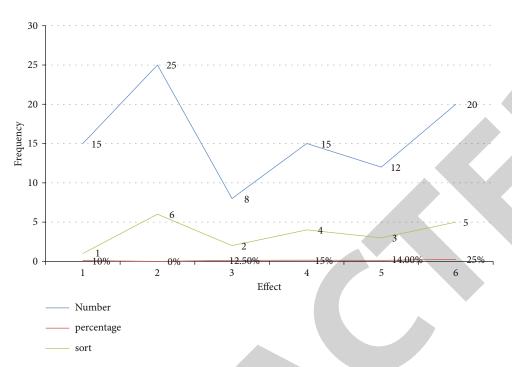


FIGURE 2: Motivation of ballet learning.

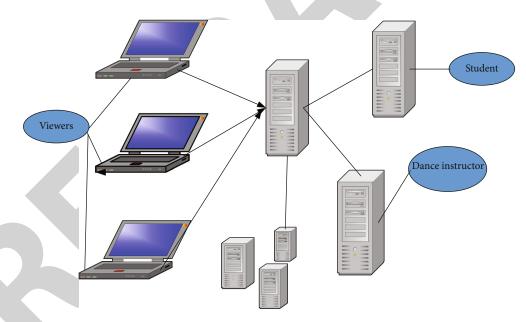


FIGURE 3: Multimedia image and video system.

development of ballet for hundreds of years [5, 6]. Therefore, the terminology of ballet is basically composed of French [6]. Due to the influence of economy and national strength, Russian ballet art gradually flourished in the late 19th century. Through the continuous refining, processing, and sorting of ballet artists in various countries, it created a more prosperous period of ballet art [7].

2.2. Formation of Ballet Basic Skills Training. So far, many dancers are still confused about the concept of ballet art:

they think that the basic training of ballet is ballet; in a broad sense, it can be said that it is the popular dance in Europe [8]. In a narrow sense, it refers to classical ballet basic training; as early as hundreds of years ago, the French Royal Academy of dance has developed a series of training system of movement rules and names, so ballet basic training is strictly not a kind of dance, but a training system, to improve the quality of dancers by ballet training [9]. Just as the basic training of classical dance cannot be confused with the concept of classical dance. For hundreds of years, through the

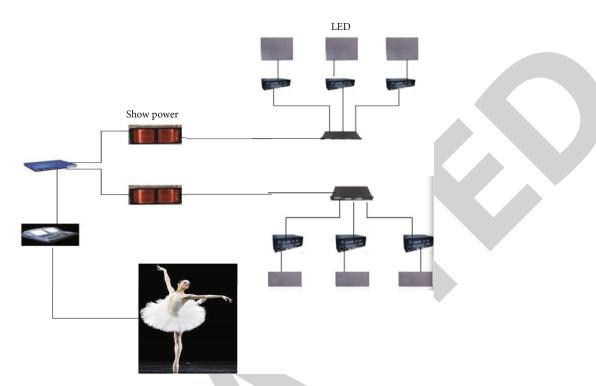


FIGURE 4: Multimedia video ballet communication.

processing and recreation of countless artists, today's basic ballet training has developed into a worldwide, scientific, standardized, and systematic basic ballet training curriculum system [10]. It has also become a training mode adopted by mainstream dance companies, professional ballet colleges, and ballet schools all over the world in their daily training one way [11, 12].

2.3. Multimedia Ballet

2.3.1. Literature Analysis. This study collected a large number of questions related to ballet [13]. First of all, a lot of investigation and research were carried out in the reference room, library, and the classroom of university electronic library [14, 15]. At the same time, a large number of the latest literature on the teaching of international standard dance were consulted. On the basis of careful reading and analysis, the scientific classification and ranking were carried out, which provided a reference for the further research of ballet and international standard dance teaching the research laid a solid foundation [16].

2.3.2. Experimental Analysis Method. Empirical analysis can be used in the investigation and research, emphasizing the close combination of theoretical analysis and empirical research, and the organic unity of international analysis and specific practice [17]. Therefore, empirical analysis occupies a considerable proportion of research in this field. In the empirical analysis, it not only analyzes the emergence and development of ballet and international standard dance teaching but also has an impact on the development process and education of Chinese ballet. It is studied and analyzed.

Therefore, this study has important practical and theoretical significance.

2.3.3. Experimental Investigation Method. In the research, we actively use experimental investigation to obtain specific data to highlight the application of multimedia-based ballet basic skills training in international standard dance teaching, only to let the dancers really understand the essence and connotation of ballet basic training [18].

3. Multimedia Ballet International Standard Dance Teaching Related Experiments

3.1. Multimedia. The most common multimedia information is text document, voice, graphics, animation, and other video. In the Internet information age, people think that multimedia information has realized the understanding of information on the Internet and has become the main carrier of information exchange and retrieval in the world. With the continuous development of network technology and the popularization of network technology, the era of digital electronic equipment and network information has come, and multimedia information has become an indispensable part of people's daily life a part. When you encounter something new, your first idea is to search for relevant multimedia information on the Internet; if you want to eat steak for lunch, search for delivery on the platform. Share your travel videos and photos on Twitter. The multimedia information data generated in daily life are gathered in a river of information data, rushing to the ocean of Internet information data.

3.2. Text Extraction of Multimedia Ballet Teaching. Dance skills are the skills that professional dancers must master, that is, in a certain period of time, by making the body muscles work normally, ligaments and bones do difficult and complex movements. Technical skills are often able to express the emotional transmission that ordinary dance movements cannot express. To complete the dance skills, we must have certain physical fitness. The quality of dance technique is closely related to the dancer's muscles, ligaments, and bones. The TF-IDF value in a text document is as follows: the more times a word appears in a text document, the greater the contribution of the word to the whole text document, and the more words the document semantic calculation uses:

$$HR_{ij} = \frac{f_{ij}}{\sum_{k} f_{kj}}.$$
 (1)

Among them, f_{ij} specifies the number of times the word information marked I is found in the text document J, and $\sum_k f_{kj}$ represents the total number of times all occurrences occur. For example,

$$IRF = \log \frac{|R|}{\{|j:t\in f|\}+1},$$
 (2)

where R is the total number of text documents $\{j:t\in f\}+1$ and indicates the number of text documents containing word information marked as I. because not all text documents contain word information, 1 is added to avoid a zero denominator. For example, next page:

$$HTRHF = TR_{ii} \times IFR_i.$$
 (3)

LDA is essentially a model, including the information of the word, the nature of the word, and the three-tier structure file of the text. The program first creates an important text tool and returns a model by learning the morpheme and the distribution probability of the word. Communication text LDA can be used to identify important information in many parts of a document

$$f(\theta, z, w) = f(\theta, a) \prod_{n=1}^{n} f(z, \theta, f(w, z, \partial)).$$
 (4)

Among them, the characteristic proportion of indicators is as follows:

$$B_{ij} = \frac{r_{ij}}{\sum_{j=1}^{n} r_{ij}}. (5)$$

3.3. Multimedia Video Denoising Methods. Super complete sparse representation of image emerges as the times require and has become a new research hotspot in recent years. Combined with the super complete method to improve the sparse representation method, because it is more in line with the human visual characteristics of the background, it can

make a more sparse representation of the image and can maximize the retention of the image edge and texture feature information and also provide a more solid foundation for distinguishing the useful information and noise contained in the image. Effective image representation is an important prerequisite for image processing. Accurate and concise sparse image representation can speed up the efficiency of image processing algorithm. Assuming that the size of natural image is m, dictionary B is a set of Ln-dimensional vectors, and B element is called dictionary atom. Image M can be decomposed into a linear combination represented by atoms in a given dictionary:

$$m = \sum_{i=1}^{L} ab + K. \tag{6}$$

Dictionary *B* is redundant. If the atoms in dictionary *B* can be expanded into an *n*-dimensional Euclidean space at the same time, then *B* is called an overcomplete dictionary. Based on the overcomplete dictionary, there are multiple decomposition coefficients *a*, among which the most sparse coefficient is selected, and then, an overcomplete sparse representation model of image is established by using *l*-norm measurement:

$$\min \|a\| = \sum_{i=1}^{L} ab,$$

$$\|a\| < \frac{\operatorname{spark}(B)}{2},$$

$$B = \operatorname{argmin} \|m - B(k)\|^{2}.$$
(7)

Then, the *a* solution is the rarest solution and has uniqueness. Although the super complete dictionary has its advantages, it also has the problem of affecting the certainty of the image decomposition coefficient *A*. We can use the uniqueness theorem to distinguish that the current image decomposition coefficient is not the most sparse.

4. Ballet Basic Skills Training in International Standard Dance Teaching

4.1. International Standard Dance Teaching. In order to better understand the application of multimedia in ballet teaching, we studied the teaching crowd, teaching frequency, teaching motivation, and teaching preference. Through the questionnaire survey, we know the attitude and effect of using multimedia in common dance teaching. Simple dance movements usually do not need a strong dance foundation. The subjects have participated in this study for about 6 months. Through training and learning, they can cultivate beautiful figure and elegant temperament, which has a certain relationship with women's more attention to their own image. The reason why men are fewer is that people are influenced by traditional ideas for a long time. Women are soft, delicate, and graceful in people's understanding, and they may also prefer dancing. At present, the gender

distribution of men and women in learning is shown in Figure 1.

It can be seen from Figure 1 that the number of young people, middle-aged women, and middle-aged women learning dance is the largest. The age of multimedia Internet users learning ballet is mainly 24-30 years old, and the least is 36-40 years old and over 41 years old. Many users aged 24-30 have personal hobbies and physical needs, so the basis of learning is to improve their morphological training. Generally, students or office workers are in the majority, and they have plenty of time at their disposal, so they can use their spare time to learn dance appropriately. Physiologically speaking, the users aged 36 and above who are learning dance are approaching middle age. In addition, they do not have much time for themselves. They need to take care of the elderly and children, and they should not spend too much time studying to avoid strain. Therefore, the number of users is at least as shown in Table 1.

4.2. Ballet Learning Motivation. Based on the investigation of several reasons for ballet learning motivation (strengthening bones, strengthening cardiopulmonary function, increasing joint flexibility, consuming calories, urging oneself to arrange study time, participating with family members, and expanding social circle) on the Internet, we can see that many people choose to consume calories, which shows that more and more people begin to pay attention to obesity, and through the exercise, they can get rid of it. It is boring and difficult to stick to it. Dance practice is the most reasonable and scientific way to lose weight, which has no side effects and cannot consume calories and improve body shape. Some people choose to strengthen their bones and other functional effects, as shown in Table 2.

As can be seen from Table 2, people's motivation to learn ballet is very different. Congenital genetic factors affect many indicators of ballet students' physical fitness. The professional physical fitness of dance students is different from ordinary people's sports ability, higher than ordinary people's sports ability. The purpose of basic training of general research dance students is to teach scientifically on the basis of heredity and growth, so as to promote the natural development of human body. Through scientific training, students can influence the changeable parts of their bodies and teach according to their own abilities to meet the needs of dancers. In teaching, there will be muscle strength problems, heart problems, and injuries. Therefore, ballet can not only exercise but also bring some damage. The number of multimedia ballet learners is shown in Figure 2.

Ballet basic training attaches great importance to standardization and systematization and has a set of relatively fixed, meticulous, cross, and step-by-step training system. "The advantage of ballet basic training system lies in the repeated melody and rhythm, so that dancers can be cultivated in temperament." The difficulty of the movement is gradual, from shallow to deep. Combined with the usual teaching practice of ballet basic training, it is not difficult to see that ballet basic training from single to complex reflects its systematicness but also reflects the style requirements for hundreds of years. Its standardization is reflected

in the position and angle of each action. For example, the height of the hands often used in ballet combination is the position of the palms of the hands on the navel, if the deviation is not acceptable. Diagonal combination generally refers to jumping practice. The score of impression is related to the performance effect and even the success or failure. Therefore, the actor's physical training has become an important part of whether the performance goal can be achieved. This point of singers can not be ignored, because the "sound form" is closely related to the inside and outside; only the combination of sound form can show the artistic charm of vocal performance. Some people may ask, why cannot body training be separated from ballet? Cannot other kinds of dance train people's body? It is true that strictly speaking, any kind of dance practice will change the natural shape of the human body, but what kind of dance can best meet the public's aesthetic and have the most immediate effect in a short time.

4.3. Multimedia Video. Multimedia image processing technology permeates all aspects of human production and life and plays a very important role. With the advent of various new digital products and equipment and instruments, images and videos have become the most common visual information carrier in human society production and labor. They carry a large amount of information, which is the main way for human to get external information. A large number of resources are needed in the acquisition, storage, and transmission of images, such as the multimedia image video system as shown in Figure 3.

With the development of Internet technology, today's ballet is shown to us through multimedia video. For example, under the multimedia system, we can see the characteristics of ballet, which can not only perform the western classic repertoire maturely but also have a large number of ballet works with its own characteristics. The nationalization of ballet art can be described as rich. The excellent recreation of western classic plays is a symbol of ballet's ranking among the world's international dances. The transmission process of multimedia video ballet is shown in Figure 4.

5. Conclusions

This study uses the methods of literature analysis, experimental investigation, and multimedia ballet teaching text experiment to study the application of ballet in modern international standard dance teaching, which is reflected by the number of people learning ballet and learning motivation. Based on the extensive application of multimedia ballet basic skills training in international standard dance teaching, we can really understand the significance of ballet basic training for the whole dance. It not only is an important part of professional dance basic training but also has valuable training value for other nonprofessional dance physique courses such as music, drama, film, and television performance. Although the practice of any kind of dance will change the natural form of the human body, as far as the best means of shaping the body is concerned, the basic training of Chinese classical dance and national folk ballet is an

international dance language, and the basic training of almost all kinds of dance is inseparable from the basic training of ballet. Ballet's aestheticism and popularity, broad and profound, while affecting and improving the physical beauty of human body, it can also make people possess the beauty of temperament and beauty, making it worthy of the essence of world dance art and constantly being praised by more and more people. Of course, each dance has a role in learning from each other; the author does not deny that other dance has a positive impact on ballet training.

Data Availability

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

References

- [1] B. Wang, Y. Hu, J. Gao, Y. Sun, and B. Yin, "Localized LRR on Grassmann manifold: an extrinsic view," *IEEE Transactions on Circuits & Systems for Video Technology*, vol. 28, no. 10, pp. 2524–2536, 2018.
- [2] R. J. Camp, K. W. Brinck, P. M. Gorresen, and E. H. Paxton, "Evaluating abundance and trends in a Hawaiian avian community using state-space analysis," *Bird Conservation International*, vol. 26, no. 2, pp. 225–242, 2016.
- [3] H. J. Jeon, J. H. Baek, and S. An, "The effects of positive and negative feedback on dance learning," *INTERNATIONAL JOURNAL OF HUMAN MOVEMENT SCIENCE*, vol. 11, no. 2, pp. 49–58, 2017.
- [4] Y. Li, W. Yan, X. Lu, H. Guan, M. Ying, and W. Yan, "A case study on a fire-induced collapse accident of a reinforced concrete frame-supported masonry structure," *Fire Technology*, vol. 52, no. 3, pp. 707–729, 2016.
- [5] J. Palacio and W. A. M. V. Noije, "High stability voltage controlled current source for cervical cancer detection using electrical impedance spectroscopy," *Analog Integrated Circuits and Signal Processing*, vol. 89, no. 3, pp. 541–547, 2016.
- [6] S. J. Kenny, P. D. Luz, O. Owoeye, J. L. Whittaker, and C. A. Emery, "Between-day reliability of pre-participation screening components in pre-professional ballet and contemporary dancers," *Journal of Dance Medicine & Science*, vol. 22, no. 1, pp. 54–62, 2018.
- [7] S. Borgwardt, T. Mailis, R. Peñaloza, and A. Y. Turhan, "Answering fuzzy conjunctive queries over finitely valued fuzzy ontologies," *Journal on Data Semantics*, vol. 5, no. 2, pp. 55–75, 2016.
- [8] J. Mestre-Ferrandiz, A. Towse, and M. Berdud, "Biosimilars: how can payers get long-term savings?," *PharmacoEconomics*, vol. 34, no. 6, pp. 609–616, 2016.
- [9] A. Sb, B. Hb, and A. Fb, "Mammography dose survey using international quality standards," *Journal of Medical Imaging* and Radiation Sciences, vol. 50, no. 4, pp. 529–535, 2019.
- [10] M. N. H. Committee, "Corrigendum to "Non-pneumatic antishock garment to stabilize women with hypovolemic shock secondary to obstetric hemorrhage" [Int J Gynecol Obstet

- 128 (2015) 194–5]," International Journal of Gynecology & Obstetrics, vol. 132, no. 2, pp. 245–245, 2016.
- [11] G. Berardi, "Dance psychology for artistic and performance excellence," *Journal of dance medicine & science: official publication of the International Association for Dance Medicine & Science*, vol. 21, no. 3, pp. 132–132, 2017.
- [12] M. N. Pavlovich, S. P. Morozova, V. I. Sapritskii, A. A. Stakharnyi, and B. E. Lisyanskii, "International comparisons of the absolute radiometer Mar-1 with the world radiation standard," *Measurement Techniques*, vol. 58, no. 11, pp. 1280–1283, 2016.
- [13] M. van den Berg, "Video and computer-based interactive exercises are safe and improve task- specific balance in geriatric and neurological rehabilitation: a randomised trial," *Journal of Physiotherapy*, vol. 62, no. 1, pp. 20–28, 2016.
- [14] S. Poudel, Y. Kurashima, Y. Watanabe et al., "Impact of 3D in the training of basic laparoscopic skills and its transferability to 2D environment: a prospective randomized controlled trial," *Surgical Endoscopy*, vol. 31, no. 3, pp. 1111–1118, 2017.
- [15] O. Levi, K. Michelotti, P. Schmidt, M. Lagman, M. Fahie, and D. Griffon, "Comparison between training models to teach veterinary medical students basic laparoscopic surgery skills," *Journal of Veterinary Medical Education*, vol. 43, no. 1, pp. 80–87, 2016.
- [16] W. Deng and J. Zhu, "Problems and countermeasures of badmenton basic skills training," *Education and teaching forum*, vol. 2, no. 49, pp. 221-222, 2017.
- [17] S. Enciso, I. Díaz-Güemes, T. Pérez-Medina et al., "Validation of a structured intensive laparoscopic course for basic and advanced gynecologic skills training," *International Journal of Gynecology & Obstetrics*, vol. 133, no. 2, pp. 241–244, 2016.
- [18] D. Guangshun, "Reflection on strengthening basic skills training work in the oilfield enterprise," *Journal of Jianghan Petroleum staff University*, vol. 29, no. 6, pp. 106–108, 2016.