

Research of the Basketball Invention and its Feasibility

Shisen Li

Physical Education Institute
Hebei United University
Tangshan, China

Abstract: Basketball hip-hop is a new body-building form which combines hip-hop with basketball. Currently, the sport only appears in some parts of our country, and the media hasn't reported or propagandized it. After referring to large amount of materials, there is no research related to the sport. The paper makes preliminary study of the value of creation of basketball hip-hop, significance of popularization and the existing difficulties and expects to promote the development of this sport.

Keywords: Basketball-and-hip-hop Dancing; The Value of its Invention; Popularization

1. Introduction

Basketball hip-hop is a new body-building form which combines hip-hop with basketball. Currently, the sport only appears in some parts of our country, and the media hasn't reported or propagandized it. After referring to large amount of materials, I found that there is no research related to the sport. This paper makes preliminary study of the value of creation of basketball hip-hop, significance of popularization and the existing difficulties and expects to promote the development of this sport.

2. Research Object and Method

2.1. Object

77 members of dance class and 70 ordinary students from East China Jiaotong University; 21 members of hip-hop team from the East China Institute Of Technology (Nanchang Campus); 11 members of men's basketball team of high school from No.1 Middle School of Yichun and 11 junior school students from No.1 Middle School of Yichun.

2.2. Method

- Questionnaire Survey Method

200 questionnaires in total were given to the students, 192 were retrieved, among which 180 were effective questionnaires and the effective rate was 90%. Besides, 43 questionnaires in total were given to the students of experimental group, 43 were retrieved, among which 43 were effective questionnaires and the effective rate was 100%.

- Experimental Method

Take 43 students of the inquirers as the experimental objects; create a basketball hip-hop movement of 4 beats;

teach them for 4 weeks and the total class hours are 32. Design an experimental method aiming at the basketball skill; compare the related data before the experiment with that after the experiment; and examine the heart rates and other physical function indexes of the participants before and after learning.

- Statistical Method

Conduct classified statistic and comparative analysis of the acquired materials; and examine and make statistical treatment of all the tables by turns.

3. Result and Analysis

3.1. The Status of Development of Basketball Hip-hop in China

With the continuous development of the economy and steady increase of people's living standard in China, people are increasingly conscious of the importance of keeping physical health and body contouring. They walk into the health clubs and training centers of amateur dance, which definitely promotes the development of fitness and entertainment methods in our country—from aerobics to Latin calisthenics, from tae kwon do to Kwando aerobics, etc, different kinds of creative projects for fitness and entertainment emerge in succession. However, the basketball hip-hop has not yet appeared in the domestic health clubs. Here, let's understand it better: it is a special presentation form of dance, which adds the actions in basketball sport such as dribbling and passing to the hip-hop movements and masterly integrates the flexible characteristics of the latter into the former. It combines the basketball sport with dance and makes it a sport outside the basket. However, in our country, this form of entertainment and fitness is in the embryonic stage, and only during the interval of the basketball game

that we can see the similar performance. The public knows little about it; therefore, we shall focus on the value of creating the movements and promotion at the present stage.

The basketball hip-hop has novelty, creativity and interest. Its creation is aimed at the fitness and entertainment, and it can assist and enhance the skills of basketball sport and hip-hop.

3.2. Creating Value of Basketball Hip-hop

Table 1. Statistical Table of Questionnaire Survey on the Creating Value of Basketball Hip-hop (N=180)

	Characteristics (Multiple Choice)				Effects (Single Choice)			
	Novelty	Creativity	Interest	Other	Fitness	Basketball	Hip-hop	Other
Number of People (People)	180	174	62	24	74	18	56	32
Proportion (%)	100	96.7	34.4	13.3	41.1	10	31.1	17.8

Table 2. Measurement of Physical Function Indexes before and after Experiment (N=43)

		Heart Rate (T/min)	Squat-and-straighten-up Index of 30s30times	Step Index
Boy	Before Experiment	76.13±3.47	7.85±0.36	48.01±1.3
	After Experiment	136.40±2.97	7.09±0.24	51.79±2.03
Girl	Before Experiment	77.67±2.86	8.73±0.28	44.00±1.82
	After Experiment	138.72±3.68	7.71±0.22	48.31±1.70

Table 3. Statistics of Effects of Designing Experiment on Different Skills of Basketball (N=43 35 boys<including 9 members of basketball team>, 8 girls)

	①Swerve Around Sticks Exercise of Dribbling		② 30s Ball Intercepting Exercise (time)	③ Standing Pass Exercise (time)	④ Footwork Combination Exercise (time)
Experimental Group	Boy	9.48	2.17	---	---
	Girl	10.72	3.51	---	---
	Total	9.72	2.44	48.33	12.15
Control Group	Boy	9.81	2.64	---	---
	Girl	10.76	3.78	---	---
	Total	10.00	2.87	48.38	12.17

Effect on National Physical Fitness

The analysis of the change of heart rate before and after the experiment shows that the sport meets the standard of public aerobics exercise, $(220 - \text{age of the exerciser}) \times [0.6, 0.8]$. Take 20 years old as the average age of the participants, the optimal heart rate of the aerobics exercise is between 120 T/min and 160 T/min, which indicates that the sport meets the standard of public aerobics exercise.

The indexes of Skubic step test and 30s30 times squat-and-straighten-up are important indicators for evaluating cardiovascular function and effective indicators for assessing the aerobic capacity. High index of Skubic step test indicates good aerobic capacity; while the index of 30s30 times squat-and-straighten-up presents synchronous decrease and has obvious difference ($P < 0.05$), which shows that the basketball hip-hop exercise promotes the shape, function and adjustment capacity of the cardiovascular system of the organism and generates good adaptation, thus enhance the aerobic capacity. Therefore, the above mentioned data indicates that this sport event can be applied to public fitness and it is a good method for fitness.

The survey result shows that 75.7% of the students would like to learn the dance, which indicates that the dance has wide acceptability and can be learned by the public. Ac-

ording to the experience of promoting tae kwon do and Kwando aerobics in China, it attracts three groups of people of physical fitness, namely tae kwon do sport, Sanda sport and body building exercise. This shows that the compound-type fitness project has large base of people, and it has more learning people compared with that of the single-type fitness project. Try to imagine that how many basketball and hip-hop fans will be attracted and people will try this unprecedented fitness project when this project enters the health club. Therefore, in terms of public fitness, this project has huge developmental potential.

Effect on Increasing the Level of Basketball Skills.

The swerve around sticks exercise of dribbling is as follows: the test distance is 10 meters, 3 sticks are placed in the middle as the barriers (the position of the sticks are respectively 2.5 meters, 5 meters and 7.5 meters from the starting line), the distance between the sticks (width) is 5 meters, the tested students dribble and run around the sticks in Z shape and calculate the time of finishing the full distance.

The 30s ball intercepting experiment is as follows: 30 seconds in total, take the center circle scope of the standard basketball field as the test site, conduct the compet-

ing ball intercepting exercise of two people in dribbling, and calculate by the times of mistakes in dribbling.

The standing pass experiment is as follows: 1 minute in total, the distance is 5 meters, calculate the times of passing ball between two people in one group (2 times per one pass).

Footwork combination experiment is as follows: the test distance is 20 meters, 6 sticks are placed in straight line in the middle as the barriers, the tested students run to the stick and conduct the cross step and up-and-under dribble action after rapid stop and backspin crossing action (repeat 3 cycles of 2 methods), calculate the time of finishing the full distance.

From table 3, we can figure out that the basketball hip-hop has distinctive effect on increasing the basketball control capacity, while indistinctive effects on the skills such as basketball pass and footwork. The increasing radian of the ball control data achievement of boys is higher than that of the girls, which shows that the sport has obvious effect on improving the level of basketball control skills. And the increasing rate of the students of basketball team is lower than that of ordinary students, which shows that the sport has obvious effect on the beginners of basketball. Thus it can be inferred that aiming at the uninteresting development of basketball control capacity of the basketball players in our country, developing the ball control capacity of the students by this sport can not only realize “happy teaching”, but also improving the level of basketball skills. Implementing this method on the beginners of basketball may improve their ball control capacity in a short period, and make them be more interested in basketball sport according to the correlation between the increase of ball control capacity and that of other basketball skills.

3.3. Promotion of Basketball Hip-hop

- As the learning of this sport requires certain dance background and sense of basketball, the survey shows that the middle school students have difficulty in accepting it due to their physical quality and other aspects; the high school students have less difficulty in accepting it; while the college students may accept it easily. Therefore, the sport shall face people above 16 years old and give priority to the youth. It is advised that before formal study, class of basic basketball control skills and hip-hop class shall be opened to decrease the difficulty so as to arouse the interest of students.
- As the creation of movements of basketball hip-hop is flexible, the individual may create movements by himself (herself) according to his (her) own characteristics, goal and other factors. This paper is aimed at providing a creative form of entertainment and fitness and basis of creation value and promotion, which may bring certain inspi-

ration to the fitness enthusiasts and physical culture workers.

- As the sport is in embryonic stage, therefore, creating movements shall take the principle of being simple and easy to learn; arousing the interest of students and giving proper attention to the aesthetic feeling of movements.
- We shall mainly use rubber basketball in learning the sport, as it is not only beneficial for the beginners to practice sense of ball, but also has cheap price.

4. Conclusion

Basketball hip-hop is a new dance and fitness form which combines the hip-hop with basketball sport. This form of entertainment and fitness has not appeared yet in the health clubs or training centers of amateur dance. At present, we shall give priority to the value of creating movements and the promotion. The sport is novel, creative and interesting. In terms of public fitness, this sport meets the standard of public fitness and exercise and it is a relatively good method for the public to keep fit. This sport has obvious effect on improving the basketball control capacity.

5. Suggestions

5.1. Give Priority to Promotion of Health Club

The basketball hip-hop has similar structure of the taekwondo and Kwando aerobics, and both of them are new forms of entertainment and fitness which integrates another kind of sport into one sport. One of the important reasons for the smooth promotion of taekwondo and Kwando is that it gives priority to “first rate” teaching; fully plays the media role of health club and builds bridge between teaching and learning. Therefore, the basketball hip-hop shall also give priority to the promotion of health club.

5.2. Give Priority to TV Media Promotion

In the late 1980s, the introduction of fitness exercises to our country took the TV promotion as the main method, and the representative column was the “5 minutes every day” on the sports channel of China Central Television. Afterwards, it has gained great favor from the sports exercisers and been widely spread in the whole country. The basketball hip-hop may also let people know it elementarily with the help of modern media methods, and then the people may change from spectators to exercisers.

5.3. Targeted Promotion

As the sport has effect on assisting and improving the basketball control capacity, we may take it as the breakthrough point and apply it to the daily training from part

to the whole. This is beneficial for the wide promotion of this sport.

References

- [1] M. Coetzee and M. Spamer, "Assessing the Determinants which May Influence the Creating of a Learning Climate in Physical Education," *Journal of Human Movement Studies*, vol. 38, Jun. 2004, pp. 1-22.
- [2] P. Hastie and S. Trost, "Student Physical Activity Levels During a Season of Sport Education," *Pediatric Exercise Science*, vol. 14, Nov. 2002, pp. 64-74.
- [3] A. MacPhail, D. Kirk and G. Kinchin, "Sport Education: Promotion Team Affiliation Through Physical Education," *Pediatric Exercise Science*, vol. 23, Aug. 2004, pp. 106-122.
- [4] T. Wallhead and N. Ntoumanis, "Effects of a Sport Education Intervention on Students' Motivation Responses in Physical Education," *Journal of Teaching in Physical Education*, vol. 23, Nov. 2004, pp. 4-18.