

The Impact of Non-Stationary Training on the Balance Ability of College Students in Dancesports

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Abstract: The study explored the factors of unstable training on the balance ability of dancesports. This also found out the balance ability and unstable training has a significant impact on the stability of dancesports students, thus making them valuable to a proposed training program for students. This study used a quantitative-descriptive-comparative research method to evaluate the development of non-stationary training and balance ability in dancesports among students in Guilin University of Guangxi Zhuang Autonomous Region in the first and second years, and the evaluation results could be used as reference for future activities. The study revealed significant impact on the non-stationary training and balance ability of college students as to their age, level and sex, with consistent rating for each indicator. Moreover, the balance ability of students was performed signifying the developmental level which opens for improvements in various balance ability tests. Therefore, a recommended training design/matrix is needed and adapted.

Keywords: Non-stationary Training; Balance Ability; Dancesports.

1. Introduction

Balance ability is one of the most important physical abilities in dancesports. In the case of the same technical level, the most important factor affecting sports performance is the stability of the dance and the completion of the movement. However, the stability and the completion of the movement depend on the balance ability. There are four scoring criteria for dancesports: technical content, musical rhythm, dance skills and choreography and presentation. The technical content requires the balance ability of the participants to have strong physical stability during the dance performance and maintain the posture at rest. The requirements of balance ability in the dance skills are reflected in reverse balance, excessive balance and holding between partners, so we can see the importance of balance ability in dancesports competition. In dancesports teaching, balance ability is a necessary basic ability for students, and different species require different balance ability, jive balance ability is the need for one foot support, cha-cha five balance ability is reflected in the rapid shift of the center of gravity.

From 1949 to 1952, China tried to run the first curriculum reform, in 1999, China officially began to run a new round of curriculum reform, in June 2000, the establishment of various subject-related research groups, in February 2021, the Ministry of Education issued the relevant documents, which means that China's basic education curriculum reform officially launched. As a latecomer to the university curriculum (dancesports elective course was first opened in Beijing Sport University in 1994), dancesports course has also followed the pace of The Times, integrated new scientific research results, and made relevant adjustments in course objectives, teaching content, teaching methods and other aspects.

With the rapid development of our society, we are in an era of rapid development, people pay more and more attention to sports, sum up our country to establish more than 40 years of PE teaching experience, learning and drawing lessons from

foreign cash PE teaching theory, now in the development era, the cultivation of talents focus on improving overall quality, People's understanding of "health" has also risen from a single physical health to a unified consideration of physical health, mental health, social adaptation and moral character.

Instability training is to let the body in an unstable state, combined with the characteristics of different projects to carry out relevant action exercises, stimulate the muscle depth, improve the body balance ability, and then effectively reduce the probability of sports injury. Instability training comes from medical rehabilitation major. With the cross-learning of disciplines, sports scholars have found that most of the athletes' bodies are in an unstable state to perform various sports in sports events. Can unstable factors be added to the training so that the athletes' bodies can adapt to it, so as to find the body balance? To better complete the technical movement has become a problem that researchers need to solve. At present, the research on the influence of instability training on balance ability in the field of sports is in the initial stage. Some scholars have pointed out that instability training can enhance the participation of the body to maintain a stable state, and then increase the accuracy of nerve control muscles, and finally achieve the purpose of improving the stability and balance of the body. It can be seen that the influence of instability training on balance ability has a certain significance, but the research is not comprehensive enough, and further research is needed.

The university stage is the period when students grow up and prepare to integrate with social life, in order to better enable students to participate in physical exercise and cultivate their overall quality and healthy body. Dancesport is an elegant fitness sport introduced into our country from abroad, and is the universal "emotional language" in the world.

Dancesports is a sport and art project integrating competition, fitness and artistry. It integrates fitness and artistic performance, and has a positive impact on the physical quality and artistic quality of college students. Through the study of this new course, college students can constantly

improve their physical quality and psychological quality.

Balance ability is an important index to evaluate the stability of the body, and it is also the basis to promote the development of technology and the key to the completion of athletes' technical movements. At present, the training of balance ability of dancesports is mainly based on traditional stability training, while non-stability training is a new training means, which is widely used in sports, but few in the field of dancesports. It is the key to study whether the balance ability of dancesports students can be different due to different degree of instability training. The purpose of this paper is:

1. Introduce non-stationary training into the teaching of dancesports elective courses in colleges and universities;

2. Experimental intervention was used to verify the different effects of different degrees of non-stationary training on the balance ability of students in dancesport elective course.

The researcher is a dancesports teacher in Guilin University in Guangxi Zhuang Autonomous Region. In my teaching, daily training and work, I have found that students who choose dancesports courses have low ability to participate in nonstationary training, and their technical movements improve slowly. Therefore, she would like to explore how to improve the balance ability of students in dancesports elective course and whether improving the balance ability of students in elective course is related to instability training. This study selected the status quo of dancesports elective course in Guilin University in Guangxi Zhuang Autonomous Region, and studied the students participating in the dancesports course in school. At present, there are 300 First year students and 300 Second year in the students' dancesports course, The selected the total of 400 students in both year level.

The researcher has worked in Guilin University for two years, mainly responsible for the teaching of compulsory and elective dancesports courses and the training of Guilin University dancesports team. Among them, special teaching, daily training and physical training are the basic training of dancesports. This paper explores the factors of unstable training on the balance ability of dancesports, and finds out whether a series of training is effective on the balance ability through investigation and research. The purpose of this study is to determine whether unstable training has an impact on the stability of dance sports students. Therefore, relevant introduction, discussion and arrangement in line with the above research are made to provide theoretical support in this undertaking.

2. Statement of the Problem

The purpose of this study is to determine the relationship between non-stationary training and students' balance ability in dancesports elective course, to propose a teaching training program that can improve students' balance ability. Specifically, this study should seek answers to the following questions:

1. What is the profile of student respondents in terms of:
 - 1.1 Age
 - 1.2 Sex
 - 1.3 Grade Level?
2. What is the assessment of student respondents on non-stationary training content before the intervention in terms of:
 - 2.1 Basic Level
 - 2.2 Consolidation stage
 - 2.3 Improvement stage
3. Is there a significant difference on the assessment of

student respondents on non-stationary training content before the intervention when the profile is taken at test factor?

4. What is the assessment of student respondents on their balance ability before the intervention in terms of:

4.1. Static Balance Category

4.2 Dynamic Balance Category

5. Is there a significant difference on the assessment of student-respondents on their balance ability when the profile is taken on test factor?

6. Is there a significant difference on the assessment of student respondents between the non-stationary training and their balance ability before and after the intervention?

7. What are the insights of teachers on the conduct of non-stationary training on the balance ability of college students dancesports class?

8. Based on the results, what training program can be proposed?

3. Hypotheses

Ho1 When grouped according to data, there is no significant difference in the respondents' assessment on the non-stationary training.

Ho2 When grouped according to personal data, there is no significant difference in the respondents' assessment on the balance ability.

Ho3 There is no significant relationship between the respondents' assessment on the non-stationary training and balance ability.

4. METHODOLOGY

4.1. Research Design

This study used a quantitative-descriptive-comparative research method to evaluate the development of non-stationary training and balance ability in dancesports among students in Guilin University of Guangxi Zhuang Autonomous Region in the first- and second-year levels, and the evaluation results could be used as reference for a proposed training design. The study used a modified questionnaire as a tool for mobile participant information. Descriptive design was considered to be the most appropriate design in this study because it is the broadest and most inclusive tool compared to other survey methods. In the context of this study, the researcher aimed to describe the process of two elements of the participants' nonstationary training and balance ability, and to understand the relationship to provide guidance for training and learning

4.2. Research Locale

The study site was Guilin College, Guangxi Zhuang Autonomous Region, China

4.3. Research Participants and Sampling Method

The study used two groups of respondents. They are first - and second-grade students and teacher participants from Guilin University in Guangxi Zhuang Autonomous Region. The student participants in this study were 200 first-grade students, 200 second-grade students and 12 teachers the selected university. These students have completed the relevant foundation courses offered by the school of Physical Education.

The teachers were from the School of Physical Education

and Health of Guilin University in Guangxi Zhuang Autonomous Region. Those teachers with at least 3 years in teaching basic courses of the first and second grades.

The study used the simple sampling method to select students and analyze the characteristics of the surveyed students to analyze them. Eight classes were selected in the first grade and eight classes in the second grades. Also, a simple sampling method was used to select the students and discussed the characteristics of the surveyed students to analyze them, eight classes was selected in the first year of the university and eight classes in the second year of the university, including two professional physical education and dance teachers, and interview with physical education teachers were conducted. A total of 12 physical education teachers, all of them are physical education teachers.

This study was conducted using the survey questionnaires in a translated Chinese language. Once the data was collected, it was collated and then translated into English.

This study adopted the method of convenience sampling to select the study participants. The 16 classes will be chosen in the study from two grades will be randomly selected, and 12 eligible teachers will participate in this study.

Table 1. Frequency and respective percentage of participants

	Frequency
Teacher	12
Student	400
Total	412

5. RESULTS AND ANALYSIS

1. What is the profile of student respondents in terms of sex, age and grade level?

Table 2. Profile of Student-Respondents

Variable	Indicators	Frequency	Percentage
Sex	Male	148	37.0
	Female	252	63.0
	Total	400	100.0
Age	19 y/o and below	202	51.0
	20-22 years old	162	41.0
	23-25 years old	36	9.0
	Total	400	100.0
Grade Level	First Grade	200	50.0
	Second Grade	200	50.0
	Total	400	100.0

As gleaned in the above table, the bulk of the student-respondents fit the description of a female student. The age grouping of 19 and under appears to have the largest frequency among the respondents, followed by 20 to 22 years old. The respondents who were in the first and second grades were distributed equally on the grade level.

2. What is the assessment of student respondents on non-stationary training content before the intervention in terms of:
2.1 Basic Level

In terms of basic level, the assessment of student-respondents on the non-stationary training yielded a composite mean score of 3.23 with a 0.75 corresponding standard deviation. This implied that basic level was performed by the students on their non-stationary training before the intervention was given. Specifically, unipedal stand showed the highest frequency among the indicators of basic level, followed by the stand with eyes closed. On the other hand, the lowest frequency was evident by prone one-

arm brace.

Table 3. Assessment of Student Respondents on Non-Stationary Training in terms of Basic Level

Exercise Contents	Mean	SD	Interpretation	Rank
Unipedal stand	3.35	0.69	Performed	1
Prone one-arm brace	3.12	0.83	Performed	10
One-armed, one-legged Support	3.21	0.79	Performed	7.5
Supine hip bridge	3.24	0.74	Performed	5
Single leg support with elbow bent	3.22	0.74	Performed	6
Supine three-point brace	3.20	0.74	Performed	9
Stand with eyes closed	3.26	0.73	Performed	2
Single-legged shoulder bridge	3.25	0.70	Performed	3
Prone three-point brace	3.21	0.76	Performed	7.5
Left and right-side bridges	3.25	0.74	Performed	3.5
Composite	3.23	0.75	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

2.2 Consolidation Stage

Table 4. Assessment of Student Respondents on Non-Stationary Training in terms of Consolidation Stage

Exercise Contents	Mean	SD	Interpretation	Rank
Upright squat	3.40	0.67	Performed	1
Barbell lunge	3.31	0.69	Performed	2
Side squat	3.28	0.74	Performed	3.5
Lower your feet to the ground	3.23	0.74	Performed	8
Press-up (physical exercise)	3.18	0.79	Performed	10
Bend one foot and touch the ground	3.21	0.76	Performed	9
Kneeling Balance	3.27	0.72	Performed	5
Box sheeting	3.26	0.77	Performed	6
Prone leg raise	3.28	0.74	Performed	3.5
Shoulder bridge lift arms	3.24	0.76	Performed	7
Composite	3.26	0.74	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

In terms of consolidation stage, the assessment of student-respondents on the non-stationary training yielded a composite mean score of 3.26 with a 0.74 corresponding standard deviation. This implied that consolidation stage was performed by the students on their non-stationary training

before the intervention was given. Specifically, upright squat showed the highest frequency among the indicators of consolidation stage, followed by the barbell lunge. On the other hand, the lowest frequency was evident by press-up (physical exercise).

2.3 Improvement Stage

Table 5. Assessment of Student Respondents on Non-Stationary Training in terms of Improvement Stage

Exercise Contents	Mean	SD	Interpretation	Rank
Turn your hips with your legs straight up.	3.36	0.69	Performed	1
Cha-cha-cha in place.	3.27	0.72	Performed	6
Basque heel raise	3.29	0.73	Performed	3.5
Arabian heel raise	3.26	0.70	Performed	7.5
Squat on one leg	3.24	0.77	Performed	9
Suction leg standing	3.26	0.71	Performed	7.5
Swallow balance	3.28	0.72	Performed	5
Stand on one foot and toss the beanbag	3.22	0.76	Performed	10
Deep squat	3.30	0.73	Performed	2
Take a horse step with your feet	3.29	0.76	Performed	3.5
Composite	3.28	0.73	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

In terms of improvement stage, the assessment of student-respondents on the non-stationary training yielded a composite mean score of 3.28 with a 0.73 corresponding standard deviation. This implied that improvement stage was performed by the students on their non-stationary training before the intervention was given. Specifically, turning the hips with legs straight up showed the highest frequency among the indicators of improvement stage, followed by the deep squat. On the other hand, the lowest frequency was evident by standing on one foot and tossing the beanbag.

Table 6. Overall Assessments of Student Respondents on Non-Stationary Training

Variables	Mean	SD	Interpretation	Rank
Basic Level	3.23	0.75	Performed	3
Consolidation Stage	3.26	0.74	Performed	2
Improvement Stage	3.28	0.73	Performed	1
Overall	3.26	0.74	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

Overall, the assessments of student-respondents in the non-stationary training disclosed a mean score of 3.26 with a 0.74 corresponding standard deviation. This implied that basic level, consolidation stage and improvement stage were performed by the students in their non-stationary training. Of all the variables, the improvement stage was ranked on the first place followed by the consolidation stage and basic level accordingly.

3. Is there a significant difference in the assessment of student respondents on non-stationary training content when the profile is taken as a test factor?

Table 7. Difference in the Assessments of Non-Stationary Training by Respondents' Sex

Variables	Mean		t-value	sig	Decision Ho	Interp.
	Male	Female				
Basic Level	3.23	3.23	-.096	.924	Accept	Not Significant
Consolidation Stage	3.27	3.26	.097	.922	Accept	Not Significant
Improvement Stage	3.27	3.28	-.171	.864	Accept	Not Significant
Overall	3.25	3.26	-.057	.903	Accept	Not Significant

Using a T-Test of Independent Samples, the difference in the assessments of non-stationary training by respondents' sex yielded a no significant result in terms of basic level, consolidation stage and improvement stage. This implied that

male and female respondents had the same performances on their non-stationary training. The null hypothesis was accepted at a 5% level of significance.

Table 8. Difference in the Assessments of Non-Stationary Training by Respondents' Age

Variables	Age	Mean	F-value	sig	Decision Ho	Interpret
Basic Level	19 y/o & <	3.16	3.985	.019	Reject	Significant
	20-22 y/o	3.33				
	23-25 y/o	3.16				
Consolidation Stage	19 y/o & <	3.22	2.113	.122	Accept	Not Significant
	20-22 y/o	3.34				
	23-25 y/o	3.17				
Improvement Stage	19 y/o & <	3.23	3.086	.047	Reject	Significant
	20-22 y/o	3.36				
	23-25 y/o	3.16				
Overall			3.06	.063	Accept	Not Significant

Using ANOVA or F-Test, the difference in the assessments of respondents on their non-stationary training obtained significant results in terms of basic level and improvement

stage. This implied that regardless of age groupings the students have varied performances on these particular exercise contents of non-stationary training. Seemingly, the

consolidation stage yielded a no significant result which implied that the students have the same performances on this

particular exercise content.

Table 9. Post Hoc ANOVA Test on the Differences in the Assessments of Non-Stationary Training in terms of Basic Level and Improvement Stage by Respondents' Age

Variables	Age	Mean	19 y/o & <	20-22 y/o	23-25 y/o
Basic Level	19 y/o & <	3.16		*	
	20-22 y/o	3.33	*		
	23-25 y/o	3.16			
Variables	Age	Mean	19 y/o & <	20-22 y/o	23-25 y/o
Improvement Stage	19 y/o & <	3.23		*	
	20-22 y/o	3.36	*		
	23-25 y/o	3.16			

*Significant at a .05 level

Using a Sheffe Test, the Post Hoc Analysis on the differences in the assessments of student-respondents according to their age in terms of the basic level and

improvement stage commonly revealed significant findings as evident by the pairs of age between 19 years old & below and 20-22 years old or vice-versa.

Table 10. Difference in the Assessments of Non-Stationary Training by Respondents' Grade Level

Variables	Mean		t-value	sig	Decision Ho	Interpretation
	First Grade	Second Grade				
Basic Level	3.11	3.35	-4.032	.000	Reject	Significant
Consolidation Stage	3.17	3.36	-3.429	.001	Reject	Significant
Improvement Stage	3.18	3.37	-3.253	.001	Reject	Significant
Overall	3.15	3.36	-3.571	.001	Reject	Significant

Using a T-Test of Independent Samples, the difference in the assessments of non-stationary training by respondents' grade level yielded significant findings in terms of basic level, consolidation stage and improvement stage. This implied that first grade and second grade student-respondents had varied

performances on their non-stationary training. The null hypothesis was rejected at a 5% level of significance.

4. What is the assessment of student respondents on their balance ability before the intervention in terms of:

4.1. Static Balance Category

Table 11. Assessment of Student Respondents on Balance Ability in terms of Static Balance Category

Test Metrics	Mean	SD	Interpretation	Rank
Barcelona	3.41	0.67	Performed	1
Arabic	3.26	0.66	Performed	6.5
Swallow's balance (Math)	3.29	0.73	Performed	3
Keep one's eyes closed and lift one's heel	3.27	0.73	Performed	4.5
Equilibrium rotation	3.24	0.74	Performed	9.5
Leg balance	3.26	0.72	Performed	6.5
Crosswise	3.23	0.76	Performed	11.5
Longitudinal treading	3.20	0.75	Performed	13
Stand on one foot with eyes closed	3.23	0.76	Performed	11.5
Bassey with closed eyes	3.24	0.76	Performed	9.5
Stand on the ball of one foot	3.30	0.71	Performed	2
Balance beam crane test	3.27	0.73	Performed	4.5
Close your eyes and spread your legs upright on one foot	3.25	0.74	Performed	8
Composite	3.27	0.73	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

In terms of static balance category, the assessment of student-respondents on their balance ability revealed a composite mean score of 3.27 with a 0.73 corresponding standard deviation. This showed that the students performed their balance ability in terms of static balance category. Of all the test metrics, the highest mean score was evident by the Barcelona followed by the stand on the ball with one foot. On the other hand, the lowest mean score was apparent by longitudinal treading.

4.2 Dynamic Balance Category

In terms of dynamic balance category, the assessment of student-respondents on their balance ability revealed a composite mean score of 3.25 with a 0.73 corresponding standard deviation. This showed that the students performed their balance ability in terms of dynamic balance category. Of all the test metrics, the highest mean score was evident by the beam walking followed by the functional extension test.

Table 12. Assessment of Student Respondents on Balance Ability in terms of Dynamic Balance Category

Test Metrics	Mean	SD	Interpretation	Rank
Beam walking	3.44	0.69	Performed	1
Straight line method	3.21	0.70	Performed	7.5
Y balance test	3.23	0.73	Performed	3.5
Multidirectional extension and experiment	3.22	0.75	Performed	5.5
Close your eyes and stand still	3.23	0.76	Performed	3.5
One-leg circular jump with eyes closed	3.22	0.74	Performed	5.5
Functional extension test	3.27	0.71	Performed	2
Wolfson postural stress test	3.21	0.74	Performed	7.5
Star excursion balance test	3.21	0.76	Performed	7.5
Composite	3.25	0.73	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

On the other hand, the lowest mean score was equally

Table 14. Difference in the Assessments of Balance Ability by Respondents' Sex

Variables	Mean		t-value	sig	Decision Ho	Interpretation
	Male	Female				
Static Balance Category	3.27	3.26	.183	.855	Accept	Not Significant
Dynamic Balance Category	3.24	3.25	-.168	.867	Accept	Not Significant
Overall	3.26	3.26	.007	.861	Accept	Not Significant

Using a T-Test of Independent Samples, the difference in the assessments of balance ability by respondents' sex yielded a no significant result in terms of static balance category and dynamic balance category. This implied that male and female

apparent by straight line method, Wolfson postural stress test and Star excursion balance test.

Table 13. Overall Assessments of Student Respondents on Balance Ability

Variables	Mean	SD	Interpretation	Rank
Static Balance Category	3.27	0.73	Performed	1
Dynamic Balance Category	3.25	0.73	Performed	2
Overall	3.26	0.73	Performed	--

Scale: 4.00-3.51=Quite Performed; 3.50-2.51=Performed; 2.50-1.51=Fairly Performed; 1.50-1.00=Not Performed

Overall, the balance ability of students was performed in terms of static balance category and dynamic balance category as evident by a mean score of 3.26 with a 0.73 corresponding standard deviation. The static balance category yielded a higher mean score compared with the dynamic balance category.

5. Is there a significant difference on the assessment of student-respondents on their balance ability when the profile is taken on test factor?

respondents had the same performances on their balance ability. The null hypothesis was accepted at a 5% level of significance.

Table 15. Difference in the Assessments of Balance Ability by Respondents' Age

Variables	Age	Mean	F-value	sig	Decision Ho	Interpret
Static Balance Category	19 y/o & <	3.21	3.226	.041	Reject	Significant
	20-22 y/o	3.35				
	23-25 y/o	3.18				
Dynamic Balance Category	19 y/o & <	3.19	2.469	.086	Accept	Not Significant
	20-22 y/o	3.33				
	23-25 y/o	3.19				
Overall			2.848	.064	Accept	Not Significant

Using ANOVA or F-Test, the difference in the assessments of respondents on their balance ability obtained a significant result in terms of static balance category. This implied that regardless of age groupings the students have varied

performances on this particular test metric of balance ability. Seemingly, the dynamic balance category yielded a no significant result which implied that the students have the same performances on this particular test metric.

Table 16. Post Hoc ANOVA Test on the Differences in the Assessments of Non-Stationary Training in terms of Static Balance Category by Respondents' Age

Variable	Age	Mean	19 y/o & <	20-22 y/o	23-25 y/o
			3.21	3.35	3.18
Static Balance Category	19 y/o & <	3.21		*	
	20-22 y/o	3.35	*		
	23-25 y/o	3.18			

*Significant at a .05 level.

Using a Sheffe Test, the Post Hoc Analysis on the differences in the assessments of student-respondents

according to their age in terms of the static balance category revealed a significant result as evident by the pairs of age

between 19 years old & below and 20-22 years old or vice-versa.

Table 17. Difference in the Assessments of Balance Ability by Respondents' Grade Level

Variables	Mean		t-value	sig	Decision Ho	Interpretation
	First Grade	Second Grade				
Static Balance Category	3.16	3.37	-3.748	.000	Reject	Significant
Dynamic Balance Category	3.15	3.35	-3.423	.001	Reject	Significant
Overall	3.15	3.36	-3.585	.000	Reject	Significant

Using a T-Test of Independent Samples, the difference in the assessments of balance ability by respondents' grade level yielded significant findings in terms of static balance category and dynamic balance category. This implied that first grade and second grade student-respondents had varied

performances on their balance ability. The null hypothesis was rejected at a 5% level of significance.

6. Is there a significant difference in the assessment of student respondents between the non-stationary training and their balance ability before and after the intervention?

Table 18. Difference in the Assessments of Student-Respondents between the Non-Stationary Training and Balance Ability Before and After the Intervention

Variables	NON-STATIONARY TRAINING					
	Before Intervention	After Intervention	Paired T-Test	sig	Decision Ho	Interpret
Basic Level	3.23	3.12	2.241	.026	Reject	Significant
Consolidation Stage	3.26	3.12	3.131	.002	Reject	Significant
Improvement Stage	3.28	3.11	3.548	.000	Reject	Significant
Overall	3.26	3.12	2.973	.009	Reject	Significant
Variables	BALANCE ABILITY					
	Before Intervention	After Intervention	Paired T-Test	sig	Decision Ho	Interpret
Static Balance Category	3.27	3.11	3.247	.001	Reject	Significant
Dynamic Balance Category	3.25	3.12	2.690	.007	Reject	Significant
Overall	3.26	3.12	2.968	.004	Reject	Significant

Using a Paired T-Test, the assessments of student-respondents in their non-stationary training and balance ability commonly yielded significant results before and after the intervention. The null hypothesis was rejected at a 5% level of significance. Ironically, it seemed that higher mean scores were apparent before the intervention in the exercise contents of non-stationary training of students as well as their balance ability.

7. What are the insights of teachers on the conduct of non-stationary training on the balance ability of college students dancesports class?

The responses of the selected teacher-respondents were taken to validate quantitative data gathered to support in the analysis and interpretations of the study. It was found out that their knowledge and experiences in handling such trainings are relevant and timely to the undertaking and they will serve as a basis for a proposed plan.

7.1 Use of the different training method

Both the training methods are beneficial to athletes whether they are students or teachers. The requirement of balance, muscle activation, and the risk of injury are all dependent on the training method to be used simply because they require certain actions that are targeted in their performance.

7.2. Training effects produced by the degrees of non-stationary training

Any types of trainings may produce different training effects. Each part or phase of the training can help achieve the overall purpose of the training. Such physical exercise/training affects their personal attributes as well as

professional competence as athletes. They increase their speed and eventually be beneficial to the body/physiological changes.

7.3. Other training methods to be used in no-stationary training

Different kinds of movements, as they are required for sports enthusiasts, are said to be dependent on the level of test or ability of the performers. For sports performance, unstable training is more in line with the actual sports state, can prevent the appearance of injury, can simulate the actual force mode on the field, can exercise muscle coordination, can strengthen the transmission efficiency of the power chain, can maintain posture stability to the maximum extent, can activate the nerve center, can improve the efficiency of neuromuscular control.

7.4. Effect of unstable training on the quality of balance

Unstable/nonstationary training requires movement, coordination and balance to perform motor skills. When these are performed frequently, achievement of the desired outcome can be observed. Training time and frequency are dependent on the task and data set per performance/activity, that will also be appeared to be an ordinary or usual task in the sports environment. Adaptability is also a key to achieve flexibility and normalization of the movements and eventually demonstrate a quality of balance. Unstable or non-stationary training should be implemented and evaluated as determinants of the mastery of balance ability.

6. DISCUSSION

This chapter presents the summary of findings, conclusions, and recommendations of this study. The manner of how the presentation in this part of the study is patterned on how the research questions were presented in the Statement of the Problem in Chapter 1.

Findings

Based on the data presented, interpreted, and analyzed in Chapter IV, the researcher came up with the following findings:

1. Among 400 student-respondents, 37% is male and 63% is female. The age bracket of '19 years old and below' have the largest frequency with 51%, followed by '20-22 years old' with 41%, and '23-25 years old' with the least frequency of 9%. The respondents are equally distributed with regards to first and second grade level.

2. What is the assessment of student respondents on non-stationary training content before the intervention in terms of:

2.1 The unipedal stand ranks highest among the indicators of basic level, with a mean of 3.35 and a standard deviation of 0.69. On the other hand, the prone one-arm brace has the lowest rank, with a mean of 3.12 and an SD of 0.83. Overall, the composite mean yielded 3.23 with an SD of 0.75 indicating that basic level was performed by students on their non-stationary training before intervention.

2.2 Upright squat ranks the highest among the indicators of consolidation stage, with a mean of 3.40 and an SD of 0.67. Press-up (physical exercise) ranks lowest with a mean of 3.18 and an SD of 0.79. Overall, the consolidation stage was performed by the students on their non-stationary training before intervention, with a composite mean of 3.26 and an SD of 0.74.

2.3 'Turn your hips with your legs straight up' ranks the highest among the indicators of improvement stage, with a mean of 3.36 and an SD of 0.69. 'Stand on one foot and toss the beanbag' ranks lowest with a mean of 3.22 and an SD of 0.76. Overall, the improvement stage was performed by the students on their non-stationary training before intervention, with a composite mean of 3.28 and an SD of 0.73.

3. When grouped according to sex, the assessments of respondents on non-stationary training yielded no significant differences in basic level, consolidation stage, and improvement stage, with a t-value of -.096, .097, and -.171, respectively. The null hypothesis was accepted at a 5% level of significance.

3.1 When grouped according to age, the assessment of respondents on non-stationary training yielded a significant difference in basic level and improvement level, with an F-value of 3.985 and 3.086 respectively. The age bracket '20-22 years old' have the highest mean of 3.33 in basic level, and 3.36 in improvement level. On the other hand, consolidation stage yielded no significant difference with an F-value of 2.113.

3.2 When grouped according to grade level, the assessment of respondents on non-stationary training yielded a significant difference in basic level, consolidation stage, and improvement stage, with a t-value of -4.032, -3.429, and -3.253, respectively. Overall, the t-value of -3.571 indicates that first grade and second grade student-respondents had varied performances on their non-stationary training.

4. What is the assessment of student respondents on their balance ability before the intervention in terms of:

4.1 Barcelona ranks the highest among the indicators of

static balance category, with a mean of 3.41 and an SD of 0.67. Longitudinal treading ranks lowest with a mean of 3.20 and an SD of 0.75. Overall, the students performed their balance ability in terms of static balance category with a composite mean of 3.27 and an SD of 0.73.

4.2 Beam walking ranks the highest among the indicators of dynamic balance category, with a mean of 3.44 and an SD of 0.69. On the other hand, Straight line method, Wolfson postural stress test, and Star excursion balance test ranks lowest with a mean of 3.21 and an SD of 0.70, 0.74, and 0.76 respectively. Overall, the students performed their balance ability in terms of static balance category with a composite mean of 3.25 and an SD of 0.73.

5. When grouped according to sex, the assessment of students on balance ability yielded no significant difference in static balance category and dynamic balance category, with a t-value of 0.183 and -0.168 respectively. The null hypothesis was accepted at a 5% level of significance.

5.1 When grouped according to age, the assessment of students on balance ability yielded a significant difference on static balance category, with an F-value of 3.226. The age bracket '20-22 years old' have the highest mean of 3.35. On the other hand, there is no significant difference in dynamic balance category when age is taken as test factor, with an F-value of 2.469.

5.2 When grouped according to grade level, the assessment of students on balance ability yielded significant difference in terms of static and dynamic balance category. The t-value of -3.748 and -3.423 indicates that first grade and second grade respondents had varied performances on their balance ability.

6. The assessment of student-respondents on non-stationary training yielded a significant difference before and after intervention in terms of basic level, consolidation stage, and improvement stage. The overall mean before intervention is 3.26 and 3.12 after intervention. The overall paired t-test value of 2.973 resulted in the decision of rejecting null hypothesis.

7. The assessment of student-respondents on balance ability yielded a significant difference before and after intervention in terms of static and dynamic balance category. The overall mean before intervention is 3.26 and 3.12 after intervention. The overall paired t-test value of 2.968 resulted in the decision of rejecting null hypothesis.

7. Conclusion

In light of the aforementioned findings, the following conclusions were made:

1. Student respondents performed the basic level, consolidation stage, and improvement stage on non-stationary training content before intervention with consistent performance across each indicator.

2. The assessment of student respondents on non-stationary training content before intervention varied with age and grade level, but not with sex.

3. The balance ability of students was performed in terms of static balance category and dynamic balance category with room for improvement particularly in longitudinal treading and various dynamic balance tests.

4. The assessment of student-respondents on their balance ability is influenced by grade level, and not sex. Age is only significant in terms of static balance category.

5. There is a significant difference on the assessment of student respondents between non-stationary training and their balance ability before and after the intervention, with both

showing improvements post-intervention.

8. Recommendations

1. Provide a comprehensive training matrix for dancesports that include training schedule, duration and categories, and the participants' classification as to their level, age and sex.

2. Conduct a training needs analysis for physical education teachers for the provisions of professional trainings and advancements as inputs to school administrators, training planners, and partner institutions/service providers.

3. Provide avenues for institutional presentations such as field demonstration, exhibition, and/or competitions aligned with physical fitness programs of the university/school.

4. Review/articulation of the physical education/sports science curriculum should be conducted with different stakeholders if modification/enhancement/integration is necessary.

5. Unification of course' scope and sequence and the training matrix can be crafted and disseminated for adoption/implementation at the school level/local universities.

6. Similar studies should be conducted on a larger scale to validate existing practices that are found significant and impactful.

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