JOURNAL OF HEALTH, PHYSICAL EDUCATION AND RECREATION
ISSN 0125-2674
Vol.47 No.1 January-June, 2021
วารสารสุขศึกษา พลศึกษา และสันทนาการ
ปีที่ 47 ฉบับที่ 1 เดือนมกราคม-มิถุนายน พ.ศ. 2564

The Study of Microteaching to Enhance Teaching Ability on Aerobic Dance

Yiling Yu* Nopporn Tasnaina**

Abstract

This research objectives were two focuses, the first was to develop the microteaching plan in teaching ability on aerobic dance for students, the second was to compare the students teaching ability outcomes between the microteaching method and traditional teaching methods which consisted of the aerobic dance teaching ability, self-evaluation ability, psychological ability and satisfaction on the teaching process. The research subjects were the thirds and fourth year's students who were studying the professional aerobic dance in Chuxiong Normal University, China. They were 7 males and 13 females with average ages at 21.85 ± 1.09 years. The subjects were randomly assignment into the two groups (Experimental group and control group). The total experimental test was eight weeks of training. The data was analyzed by repeated measure ANOVA at .05 level of significance, then to compare the results of each group on pre-test and post-test.

The research results shown that after the eight weeks of training program, the comparisons in all aspects were significantly different. The detail were: 1) The aerobic dance teaching ability aspect, teachers and students evaluation of teaching ability was statistically better in ($p < .05$) . 2) The self-evaluation ability on the teaching process was statistically better in ($p < .05$). 3) The psychological ability on three anxiety aspects was statistically better in ($p < .01$). 4) The satisfaction for the teaching aspect evaluated by the teachers and the students was statistically better in ($p < .05$). This research could concluded that the microteaching was effective to use in aerobic dance student class

Key words: Microteaching, Teaching ability, Aerobic dance, Student teacher

* Master Degree Graduate, Faculty of Sport Science, Burapha University
**Associate Professor, Faculty of Sport Science, Burapha University
Contract: Yiling Yu Email: nop5503@hotmail.com Mobile:062-8039058
Received: May 9, 2020 ; Revised: May 21, 2021 ; Accepted: June 3, 2021

because it could positively improve better than traditional teaching in all aspects as teaching ability, satisfaction, and the psychological ability (include the cognitive, somatic and self-confidence state anxiety).

Introduction

Microteaching has been translated as “mini-teaching”, “microcosmic teaching” and “teaching video feedback” etc. It was composed by Dwight W. Allen of Stanford University who obtained in the teaching practice (Allen, 1967). Microteaching was widely used for the training of normal university students and in-service teachers teaching basic skills and teaching methods. With people’s understanding of microteaching methods, microteaching has been widely used, popularized and played an important role in a various institutions of normal university, pre-service teachers and some education raining institutes.

Microteaching is a short but completely structured teaching practice method, students or pre-serving teachers can design their own teaching programs to demonstrate and implement of 5-10 minutes, 7-10 peoples a class, and to integrate the gap between theory and practice through the curriculum. Microteaching through the learning, watching, analysis, practice, evaluation methods, the camera to record the entire teaching process, using video as a basis for feedback and evaluation, teachers, peers and evaluate the participants, discussion and analysis for the teaching process, it enables students to discover and true feel their practical problems in teaching practice and teaching process more intuitively (Chen, 2008).

With the success of Sandford in 1960s, the popularity of microteaching in teacher education has expanded (Edwards, 1975). China is the first time the introduction of microteaching from the Britain in 1980s (Shi, 2007). Using the microteaching in physical education teaching to improve teaching skills is still in the stage of development, and the application research of microteaching methods in the teaching of aerobic dance students are few.

Aerobics dance is an exercise, music, entertainment, dance blend of sports, aerobic dance are also popular in college physical education curriculum (Huang, 2012). In the traditional aerobic dance classroom teaching and training, teachers are more focused on professional skills, normative action and the quality of the movement to

complete, while ignoring the training and cultivation of students' basic teaching skills, this led to a better professional skills of students, but poor teaching ability in teaching practice. In the process of teaching, they can't put their own professional knowledge into good usefulness. And traditional aerobic dance teaching and evaluation, when the teacher evaluation of students, most of the teacher's subjective awareness and memory as the basis for evaluation, in the real performance, students can't fully understand and recognize themselves. This leads students can't timely find and correct their wrong actions, it impossible for students to improve their actual teaching ability.

The researcher was the aerobic dance graduates and was the teacher assistance in Chuxiong Normal University. The author would like to find out whether the teaching by microteaching could enhance the students' ability or not. Therefore the author does this research have three main research questions in this study: (1) Do the microteaching process developed by researcher can enhance better teaching ability on students aerobic dance? (2) Is the microteaching can better improve the student's ability than traditional teaching method? (3) Do the students satisfy the process of microteaching? And have two research purposes: (1) The use of microteaching to develop the microteaching plan for students in teaching ability on aerobic dance. (2) To compare the teaching ability outcomes between the microteaching and traditional teaching methods, finally make students and teachers improve their teaching satisfaction through microteaching, and ultimately improve them actual teaching ability.

Research Methods

Participants

Microteaching is used for the small-groups teaching, participants normally is 5-10 peoples (Jia, 2013) and the time was 10 minutes (Wang & Lei, 2000). So the author selects Chuxiong Normal University aerobic dance professional thirds and fourth year's students, include the 7 males and 13 females, aged 21 to 24 years old, there are 20 peoples in total.

Group allocation and sample test

Use the test scores to choose the students to do the sample, Make sure they have good physical fitness skill and skill to complete the set of actions of aerobic dance. Test content is: (1) Physical fitness test (2) High strength combination test.

20 persons basis on the test final average results, from high to low score, use the match paired random selection to group1 and group 2, keep the two groups means equal, then using the randomly assignment to the experimental and control groups, ten people in each group.

Research procedure

There are four main steps in this section: (1) Pre-test (2) Experimental group microteaching learning (3) Experimental test (4) Post-test.

Both the experimental group and the control group need to participate through three stages (pre-test, training and post-test). The total experimental period was 8 weeks of training. The two groups using different teaching methods (experimental group using the microteaching, control group using the traditional teaching method). Two groups teaching contents, goals, times and progress are same, twice a week, two hours each time. Teaching practice time is 10 minutes for each tester. Finally to compare the results of each group on pre-test and post-test. The study will measure the results include: (1) Student's aerobic dance teaching ability. (2) Student's psychological ability. (3) Student's self-evaluation ability. (4) Student's satisfaction for the teaching. Pre-test and post-test test content are same. For the experimental test no teaching communication between the two groups, ensure that the experimental conditions are equal.

Evaluation methods

Based on the last course teaching video, pre-test evaluation mainly from the students and experimental teacher evaluation. Post-test evaluation mainly from the students and three professional teachers who have many years teaching experience. The three professional teachers' will evaluation sample was 10 students for each group.

Statistical data analysis

All the outcome data were used for the data analyses. In this research, will using the statistical methods repeated measures ANOVA to analysis the each groups pre-test and post-test. Statistical significance was defined as $p < 0.05$ or exceeding the 95% critical value. For the research data, will using the SPSS 22.0 statistical software to conduct the statistical analyses. Including the mean, standard deviation error, F values and P values.

Results

The results of this study were the comparisons on the experimental data from main 4 aspects as follow: (1) Aerobic dance teaching ability; (2) Student's self-evaluation ability; (3) Psychological ability; (4) Satisfaction for the teaching.

Table 1: The estimated marginal mean of the score on the student's aerobic dance teaching ability and satisfaction for the teaching

Aerobic dance teaching ability (Scoring evaluation by students and teachers)									
	Students					Teachers			
Condition	Time	Mean	Mean change	F	Sig.	Mean	Mean change	F	Sig.
Experimental group	1	80.26	2.62	30.47* (a)	.000	81.34	2.73	47.80* (a)	.000
	2	82.88				84.07			
Control group	1	79.56	1.16	5.93** (a)	.026	79.53	1.19	9.09* (a)	.01
	2	80.72				80.72			
Satisfaction for the teaching (Scoring evaluation by students and teachers)									
	Students					Teachers			
Condition	Time	Mean	Mean change	F	Sig.	Mean	Mean change	F	Sig.
Experimental group	1	4.29	0.25	34.76* (a)	.000	4.29	0.25	30.00* (a)	.000
	2	4.54				4.54			
Control group	1	4.16	0.11	6.10** (a)	.024	4.16	0.11	5.47** (a)	.031
	2	4.17				4.27			
Student's psychological ability (Scoring evaluation by students self)									

		Experimental group				Control group			
Condition	Time	Mean	Mean change	F	Sig.	Mean	Mean change	F	Sig.
Cognitive state anxiety	1	22.00	- 6.2	165.93* (a)	.000	21.50	- 4.3	79.81* (a)	.000
	2	15.80				17.20			
Somatic state anxiety	1	20.50	- 7.6	128.67* (a)	.000	19.00	- 5.4	64.96* (a)	.000
	2	12.90				13.60			
Self-confidence state anxiety	1	13.70	7.8	246.10* (a)	.000	14.10	5.9	140.80* (a)	.000
	2	21.50				20.00			

a: Exact statistic * p < .01 ** p <.05

Table 1 showed that the student's aerobic dance teaching ability, student's psychological ability and student's satisfaction for the teaching. For the student's aerobic dance teaching ability in two group were significant difference. In the experimental group (M = 2.62, M = 2.73), control group (M = 1.16, M = 1.19). Experimental group were significant difference at (p = .000, p = .000) and the control group were significant difference at (p = .026, p = .01). Which the experimental group changed greater than the control group.

For the student's psychological ability on three aspects state anxiety in two groups were significant difference. In the experimental group three aspects (M = - 6.2, M = - 7.6, M = 7.8), control group (M = - 4.3, M = - 5.4, M = 5.9). The two groups in the three aspects were significant different, and the significant difference are same, experimental group significant at (p = .000), control group significant at (p = .000). Two groups students in the psychological ability aspect have improved, but the experimental group changed greater than control group.

Student's satisfaction for the teaching in two groups were significant difference. In the experimental group (M = 0.25, M = 0.25) control group (M = 0.11, M = 0.11). Experimental group were significant difference at (p = .000, p = .000), and the control group at (p = .024, p = .031). Which the experimental group changed greater than control group.

Table 2: The estimated marginal mean of the score on the student's self-evaluation ability

Student's self-evaluation ability (Evaluation by students)					
Condition	Time	Mean	Mean change	F	Sig
Experimental group	1	81.32	2.43	148.16* (a)	.001
	2	84.75			
Control group	1	79.54	1.15	56.48* (a)	.001
	2	81.05			

a: Exact statistic * p < .01

Table 2 showed that the student's self-evaluation ability in experimental group and control group were significant difference. In the experimental group (M = 2.43) and in the control group (M = 1.51). The two groups were significant different, experimental group significant at (p = .001), control group significant at (p = .001). Which the experimental group mean difference changed greater than control group mean difference.

Discussion

This part will discusses the three questions: (1) Why the microteaching process developed by researcher can enhance better teaching ability on aerobic dance of the students? (2) Why the microteaching improve the student's ability better than traditional teaching method? (3) Why the students satisfied the process of microteaching?

Question: 1

From the results of the experimental study, the microteaching process developed by the researchers could enhance teaching ability better on aerobic dance. According to the data of the experimental results in the fourth chapter, the experimental

scores of the microteaching group are higher than those of the traditional teaching group, and have difference significant. This experimental result was also supported by other research (Huang, 2012; Cheng & Liu, 2007; Qiu & Zhu, 2007, etc). The experimental group watched teaching demonstration videos before teaching, then he / she planed the lesson to teach for the next period, by repeated doing this many times along the 8 weeks of experiments, they already had a preliminary understanding microteaching of the content and process, thereby reducing the negative impact on the unfamiliarity of the microteaching process, make the experimental research results can achieve the desired results, improved the teaching ability of students.

Questions: 2

From the results of the experimental study, microteaching and traditional teaching are had a positive effect on improving teaching ability, but microteaching could improve the student's ability better than traditional teaching methods. Microteaching has the advantages and conditions that traditional teaching did not have, especially the feedback of the past performance. The microteaching mode is the reinforcement and supplement of the traditional teaching mode. The traditional teaching focuses on the training of students, the student might get the feedback by words of the teacher so he / she might not exactly understand.

In the study of this research, both the two groups had significant differences, but between the pre-test and post-test of the experimental group was significant difference relatively obvious. The data range of the experimental group is ($P < .01$), and the data range of the control group is ($.00 < P < .05$). In general, microteaching and traditional methods had the same teaching effect in the classroom teaching, but microteaching was more effective to improve the student teachers' teaching ability. This view not only proved by experimental studies (Mo & Zhang, 2008; Li, 2013; Wei & Luo, 2011; Huang, 2009, etc.), but also showed that the researchers' experimental results are also supported by other institutes.

Questions: 3

From the results of the experimental study, compared with the traditional teaching method of the control group, the experimental student teachers have higher satisfaction

with the microteaching, and there was significant difference. This result was not get along with those of Han (2014) and Wang (2013) etc. Among them, Han (2014) thought that skills training is not comprehensive, teaching process is not standardized, so the insufficient assessment criteria will affect students' satisfaction with microteaching. In this study, although there was a significant difference in satisfaction, the difference was not as great as in the traditional teaching group, there were many factors that may affect the results of the study. Such as the degree of students' participation, teaching preparation, emphasis on microteaching, participation purpose, teaching evaluation and feedback, etc. The most important of these was that teaching evaluation and feedback were not comprehensive and were not subjective, the students could observe theirs friends while in class and were notified the uncompleted and was advised to correct them by the teacher immediately after practice and had a chance to practice again, this might affect the attitude of students toward microteaching, thus reducing the student's satisfaction of microteaching.

Conclusions

The training in student's aerobic dance teaching through the two methods, microteaching and traditional teaching method could improve the self-evaluation ability, satisfaction for the teaching, psychological ability and aerobic dance teaching ability, but the microteaching could improve them more than the traditional teaching method.

Recommendations

General recommendations

1. Media / multimedia added in traditional teaching methods might enhancing the better results.

2. Increase classroom teaching practice activities and experience accumulation.

3. Microteaching is the active learning process, and it was hard work for students who were not familiar to this method of teaching. So they have to be trained before imply this method of teaching.

Recommendations for the further study

1. Study benefits of microteaching on the other courses of teaching practice to improve the teaching ability.

2. Using the process of microteaching as a feedback technique to enhance the sport skills to the students or athletes

3. Further research and development should aware on reasonable and specific evaluation tools and increase the power of evaluation.

Acknowledgement

The author would like to thank Associate Professor Dr. Nopporn Tasnaina for lead the author writes and corrects all of this thesis, although he was very busy with his schedule. And would also like to thank the students who participated in the study without whom the study could not have been conducted. There was no financial support for the study.

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