The Effect of Integration in A Dance Instruction Model for Undergraduate Students in General Education at Rajamangala University of Technology

Sangworn Jankorn[a], Asst.Prof.Dr. Sathin Prachanban[b], Dr. Phanu Kusolwong[c]

[a] Doctoral student, Doctor of Education Program in Health Education and Physical Education, Faculty of Physical Education, Srinakharinwirot University
[b,c] Department of Physical Education, Faculty of Physical Education, Srinakharinwirot University
[a] sangworn.jan@g.swu.ac.th , [b] drsathin@gmail.com , [c] phanu@g.swu.ac.th

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Abstract: This research aimed to study the effect of Integration in a Dance Instruction Model for undergraduate students in General Education at Rajamangala University of Technology. The research methodology was the Quasi Experimental Research and Evaluation Research with Mixed Research Method. Conduct teaching and learning according to the Integration in a Dance Instruction Model. The sample group in the research was undergraduate students of Rajamangala University of Technology Thanyaburi Who are enrolled in dance In general education courses, semester 1, academic year 2019, 2 groups, which were obtained by selecting a specific A total of 60 people, divided into 30 people each. The data were analyzed by content analysis, analytic induction, basic statistics, One-Way Sample t-test and a One-Way ANCOVA. Research findings. The study was found that the dance skills of students were higher than before the study at a statistically significant level of .05. The students who studied with the Integration in Dance Instruction Model had better dance skills than the other dance students at a statistically significant level of .05. The students studied with the Integration in Dance Instruction Model with different instructors, and the results were found to be similar. The students who studied with the Integration in Dance Instruction Model had higher satisfaction levels at the most level and higher than the other participants.

Keywords: Instruction Model, Model Integration, Dance Instruction, Integration in a Dance Instruction Model

1. Introduction

Key to the development and growth to any nation in an increasingly competitive and uncertain global economy is education and training for its work force. In addition, education enables and develops people on a personal level. Education not only provides people with a process of acquiring knowledge but also aids people in developing themselves, society as a whole, the economy, and the nation in order to be internationally competitive among other countries in the world [1]. Furthermore, education strengthens people's minds, characteristics and behaviors which to become professional and have expertise for a successful future [2]. Physical Education is a field of education which is essential for students in terms of physical, mental, emotional, social and intellectual development through physical activities or sports. Students of P.E self-develop in many aspects [3]. Physical Education also allows students to build physical fitness, skills, knowledge, morals and a positive attitude at the same time. It also offers students five objectives: physical competency, knowledge and understanding of how to play or the rules, skills, moral and attitudes. It is essential to focus on organizing the activities for students so that they can put into practice and develop themselves in all aspects. Finally they can achieve the highest potential of themselves [3]. Dance is one of the physical education activities which is very popular currently, improving physical fitness by strengthening muscles, building muscle tone (especially in the arms and legs) and increasing flexibility, as well as improving blood circulation and the respiratory system [4]. Therefore, both men and women of all ages are encouraged to undertake some form of physical activity . Also, sport is a global commodity and is celebrated by people all around the world [5]. Dance is an important part of physical education. Many higher education institutions in Thailand include dance subjects into their curriculums up to bachelor degree level [6]. Rajamangala University has organized a dance course for undergraduate students in General Education. The course will give students overall satisfaction in order for them to react and learn through participation. The educator should well design the course in order to reach student's satisfaction which results in effective learning outcomes and learning objectives [7]. According to the National Education Act B.E. 1999 and Amendments (Second National Education Act B.E. 2002 and (Third National Education Act B.E. 2010 [8], to organize a learning and teaching process which its contents and activities related to students' attention and aptitude, it is important to consider the difference of each individual. The effective learning and teaching process will provide students with skills of thinking and management. Students can apply those and solve problems. For students to be able to practice and learn how to be proactive and feel eager to learn continuously, it is necessary that the educators use various methods of teaching and learning. From above information, the researcher has developed a dance instruction model by inventing a 123CPM model which is adapted from Bloom's taxonomy [9] and Maslow's hierarchy [10] (1943) by emphasizing cooperative learning alongside with activities for small groups of students. Team Assisted of Individualization,TAI [11] and Tripp & B.

Bichelmeyer model [12] are as well applied. The outcomes of this research offer not only the integrated dance instruction model for undergraduate students in general education at Rajamangala University of Technology but also better academic performance and the greatest levels of satisfaction.

2. Research objectives

The objectives of this research were 1) to experiment on undergraduate students in general education at Rajamangala University of Technology, and 2) to assess the effectiveness of the integrated dance instruction model.

3. Research Method

This research was a quasi-experimental and evaluation research using mixed research method and applying the multiple group pre test-post test design.

Samples used in the research

The sample was selected from undergraduate students of Rajamangala University of Technology, Thanyaburi who enrolled in dance lesson in general education during first semester of the academic year 2019. Sixty students were divided into two groups of thirty.

Research instruments

.1The integrated dance instruction model for undergraduate students in the General Education of Rajamangala University of Technology consisted of a manual, which has the median (Md) of 4-5 and interquartile range (IQR) of 0-1, and 16 lesson plans, which has the median (Md) of 4-5 and interquartile range (IQR) of 0-1. Therefore, the integrated dance instruction model met the criteria and was appropriate.

2. Comparison to another dance instruction model.

3. Dance skill assessment form which marked the criteria; validity (IOC) of 0.86-1.00 greater than 0.50, objectivity of 0.83-1.00, discrimination of 0.31-0.42 greater than 0.20 and reliability of 0.83 greater than 0.70.

4. Students' satisfaction assessment form, which has the validity (IOC) of 0.71-1.00 greater than 0.50.

The data collection involved three steps:

Step 1: The integrated dance instruction model was used and tested by undergraduate students in General Education at Rajamangala University of Technology. The study of this dance instruction model was a quasi-experimental research, using a multiple group pretest and post test design for a duration of eight weeks. The researcher divided students as follows:

1. The purposive sampling was used to divide students into two groups of thirty, experimental group and control group. The first educator, also a researcher, taught with the integrated dance instruction model with beguine rhythm while the second educator illustrated beguine rhythm using a alternative dance instruction model.

2. Both groups of students' completed pre-test of their beguine dance performance by using a dance skill assessment form designed for undergraduate students in General Education at Rajamangala University of Technology and the scores were recorded.

3. The educators provided the course for a duration of four weeks.

4. Both groups of students' completed post-test for their beguine dance performance by using a dance skill assessment form for undergraduate students in General Education at Rajamangala University of Technology and the scores were recorded.

5. Both groups of students evaluated their satisfaction of the course using a satisfaction assessment form prepared by the researcher.

Step 2: After four weeks, the Test-retest method was applied for both groups with the integrated dance instruction model using a cha cha cha rhythm. The details are described as follows:

1. Both groups of students were taught cha cha cha rhythm with the integrated dance instruction model by two different educators.

2. Both groups of students' carried out pre-test for their cha cha cha dance performance by evaluating with a dance skill assessment form for undergraduate students in General Education at Rajamangala University of Technology and the scores were recorded.

3. The educators provided the course for a duration of four weeks.

4. Both groups of students' carried out post-test for their cha cha cha dance performance by using a dance skill assessment form for undergraduate students in General Education at Rajamangala University of Technology and the scores were recorded.

5. Both groups of students assessed their satisfaction towards the course using satisfaction form prepared by the researcher.

Step 3 : A dance assessment form was utilized for undergraduate students' performance in General Education at Rajamangala University of Technology. The researcher conducted the assessment as belows:

1. Assessment of the use of the instruction model was analyzed in terms of duration of the class:

1.1 Beguine rhythm (First four weeks)

1) After attending to beguine rhythm class with the integrated instruction model, students had a higher dance skill. T-test Dependent showed the result of a statistically significant of .05 level.

2) Students studying beguine rhythm with the integrated dance instruction models represented higher skills than those receiving another dance instruction model. The analysis of variance (One Way ANCOVA) indicated the outcomes of a statistically significant of .05 level.

3) The students' satisfaction when studying beguine rhythm with the integrated dance instruction model was high: mean calculated greater than 3.50. One sample T-Test revealed the result of a statistically significant of .05 level.

1.2 Cha cha cha rhythm (Final four weeks)

1) After attending to cha cha cha rhythm class with the integrated instruction model, students had higher dance skill. T-test samples dependent showed the result of a statistically significant of .05 level.

2) Both groups of students who studied the integrated dance instruction model show similar results. The analysis of variance (One Way ANCOVA) indicated the outcomes of a statistically significant of .05 level.

3) Both groups who studied the integrated dance instruction model teaching style of dancing, stated their satisfaction was high: mean calculated greater than 3.50. One sample T-Test revealed the result of a statistically significant of .05 level.

1.3 Thirty students' satisfaction of the dance instruction models was observed. The students studying the integrated dance instruction model showed a higher level of satisfaction compared to ones with another dance instruction model. T-test samples dependent showed the result of a statistically significant of .05 level.

4. Results

This research revealed the following results by specific purposes:
1. The findings of dance skill assessment of undergraduate students in General Education at Rajamangala University of Technology.

2. The results of students' satisfaction of undergraduate students in the General Education at Rajamangala University of Technology towards integrated dance instruction model.

The details were described as follows :

The sample groups were two groups of thirty students enrolling dance class in General Education during first semester, 2019 at Rajamangala University of Technology. The first group consisted of thirty students: six male students representing 10% and twenty-four females, 40%. The second group involved thirty students: five male students calculated 8.33% and twenty females, 41.67%

The researcher assessed the use of dance instruction model by following details.

1. Model assessment by a duration of the class.

1.1 Beguine rhythm (First four weeks)

1) After attending to beguine rhythm class with the integrated instruction model and another dance instruction model, students had higher dance skill compared to pre-class. T-test samples dependent on table 1 showed the result of a statistically significant of .05 level.

Table 1 : The results of the comparison between pre and post dance skill of students with beguine rhythm (n = 60)

Dance Styles	Teaching	n	Before $\bar{X}$	Before SD	After $\bar{X}$	After SD	$\bar{d}$	S_d	t	Sig.
Integrated		30	4.07	0.87	15.40	81.0	11.11	1.06	58.49*	<.01
Others		30	4.07	0.69	14.10	89.0	10.03	1.10	50.05*	<.01

* statistically significant of .05 level

From table 1, the students studying with the integrated dance teaching model developed a higher level of skill than those who studied with other dance teaching models at a statistically significant at the .05 level.

2) Students studying beguine rhythm with the integrated dance instruction model had higher skills than the students studying with another model. The analysis of variance (One-Way ANCOVA) indicated the outcomes of a statistically significant of .05 level. The results of the analysis can be found in Table 2.

Table 2 : Results of analysis of variance (One-Way ANCOVA) of students' performance with beguine rhythm, classified by dance instruction model.

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Before Study (Pretest)	0.70	1	0.70	0.97	.33
Teaching Style	25.35	1	25.35	35.07*	< .01
Error	41.20	57	0.72		
Tota	13121.00	60			

* statistically significant of .05 level

From table 2, the analysis of variance (One-Way ANCOVA) of dance performance with beguine rhythm, classified by dance instruction model showed a statistically significant at the .05 level. Both groups of students displayed a similar dance skill during pre-class (F=0.97 and Sig. = .33) However, after applying the integrated dance instruction model to one group, this group of students had a superior skill level.

3) The students' satisfaction of the integrated dance instruction model with beguine rhythm was high (mean scores greater than 3.50) at a statically significance at the .05 level evaluated by One sample T-Test shown in Table 3.

Table 3 Results of students' satisfaction survey comparing the integrated dance instruction model with beguine rhythm to the another model using the specific marking criteria (X = 3.50) (n = 60)

	Teaching Styles	Integrated dance instruction model $\bar{X}$	Integrated dance instruction model S.D.	t	Sig.	another model $\bar{X}$	another model S.D.	t	Sig.
1	Learning Objectives	4.48	0.43	12.67*	<.01	4.39	0.47	10.45*	<.01
2	Instructor	4.57	0.35	16.74*	<.01	4.37	0.47	10.20*	<.01
3	Course Content	4.37	0.47	10.10*	<.01	4.31	0.48	9.27*	<.01
4	Organizing Teaching and Learning	4.33	0.38	11.87*	<.01	4.26	0.34	12.40*	<.01
5	Assessment	4.37	0.47	10.23*	<.01	4.39	0.46	10.58*	<.01
6	Media, equipment, location and facilities	4.47	0.53	10.06*	<.01	4.17	0.43	8.53*	<.01
	Overview	4.42	0.34	14.91*	<.01	4.32	0.36	12.40*	<.01

* statistically significant of .05 level

From Table 3, it was found that the students' satisfaction towards beguine rhythm with integrated dance instruction model was high (t=14.91*, Sig.<.01, t=12.40*, Sig.<.01).

1.2 Cha cha cha rhythm (Final four weeks)

1) The students had a higher performance in cha cha cha rhythm after studying with the integrated dance instruction model. T-test samples dependent showed the result of a statically significant at the .05 level.

Table 4 : The comparison of pre and post dance class of students studying cha cha cha rhythm (n = 60) with the integrated dance instruction model using educators.

Instructor	n	Before $\bar{X}$	Before SD	After $\bar{X}$	After SD	$\bar{d}$	S_d	t	Sig.
Researcher	30	5.60	0.86	16.80	0.85	11.11	1.19	51.72*	<.01
Other Instructor	30	5.53	0.82	16.60	0.86	10.53	1.01	57.24*	<.01

* statistically significant of .05 level

From Table 4, the results of data analysis comparing students' dance skill during pre and post class of students cha cha cha rhythm with the integrated dance instruction model. As the researcher was the educator, it was found that the students developed a higher skill.

2) Both groups of students studying the integrated dance instruction had no difference in terms of dance skill. The analysis of variance (One-Way ANCOVA) indicated in table 5 that the outcomes of a statistically significant of .05 level.

Table 5 : Results of students' performance in cha cha cha rhythm with the integrated dance instruction model classified by educator using the analysis of variance (One-Way ANCOVA)

Source of Variation (Source)	Sum of Squares	Degree of Freedom	Mean Square	F	Sig.
Pretest Score	0.62	1	0.62	0.85	.36
Instructor	0.55	1	0.55	0.76	.39
Error	41.39	57	0.73		
Total	16776.00	60			

* statistically significant of .05 level

Table 5 showed the results of the One - way ANCOVA analysis of students' dance skill for cha cha cha rhythm with the integrated dance instruction model classified by educator at a statistically significant of .50 level. It was found that, during pre and post class, both groups of students had no differences in their dance performances (F = 0.85 and Sig . = .36) and (t = 0.91 and Sig . =. 37).

Table 6 : Comparison of students' dance performance with cha cha cha rhythm after studying with the integrated dance instruction model (n = 60)

Insructor	n	After Study $\bar{X}$	SD	t	Sig.
Researcher	30	16.80	0.85	0.91	.37
Other Instructor	30	16.60	0.86		

* statistically significant of .05 level

3) The satisfaction of both groups towards the integrated dance instruction model was high (mean scores greater than 3.50) and at statistically significant of .05 level analyzed by One sample T-Test.

Table 7 Results of students' satisfaction after studying cha cha cha rhythm with the integrated dance instruction model by two educators using the specific marking criteria (X = 3.50) (n = 30)

	Teaching Styles	1st Instructor $\bar{X}$	1st Instructor SD.	t	Sig.	2nd Instructor $\bar{X}$	2nd Instructor SD.	t	Sig.
1	Learning Objectives	4.33	0.59	7.71*	<.01	4.58	0.56	10.55*	<.01
2	Instructor	4.39	0.55	8.82*	<.01	4.49	0.49	10.93*	<.01
3	Course Content	4.37	0.51	9.27*	<.01	4.41	0.46	10.74*	<.01
4	Organizing Teaching and Learning	4.67	1.23	5.21*	<.01	4.67	1.23	5.21*	<.01
5	Assessment	4.44	0.44	11.58*	<.01	4.63	0.40	11.32*	<.01
6	Media, equipment, location and facilities	4.49	0.56	9.67*	<.01	4.51	0.52	10.62*	<.01
	Overview	4.39	0.45	10.86*	<.01	4.56	0.50	11.55*	<.01

* statistically significant of .05 level

From Table 7, it was found that the students' satisfaction towards cha cha cha rhythm with the integrated dance instruction models with both educators was high. (t = 10.86, Sig . < .01, t = 11.55, Sig . < . 01)

1.3 The students' satisfaction for dance instruction model and other model were compared (n = 30 students). It was found that the students studying with the integrated dance instruction model had a higher level of satisfaction at statistically significant of .05 level analyzed by T-Test samples dependent.

Table 8 : The comparison of satisfaction results of means during post-class with dance instruction model and other models (n = 30).

Teaching styles	Integrated patterns		Another					
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{d}$	S_d	t	Sig.
1. Learning objectives	4.58	0.56	4.39	0.47	0.19	0.78	1.35	. 09
2. Instructor side	4.49	0.49	4.37	0.47	0.11	0.77	0.81	. 21
3. Course content	4.41	0.46	4.31	0.48	0.09	0.70	0.73	. 24
4. The organization of teaching and learning activities	4.67	1.23	4.26	0.34	0.40	1.19	1.86 *	. 04
5. In the assessment of academic performance	4.63	0.40	4.39	0.46	0.24	0.61	2.13 *	. 02
6. Teaching media, equipment, locations and facilities	4.51	0.52	4.17	0.43	0.33	0.70	2.62 *	. 01
Total	4.56	0.50	4.32	0.36	0.24	0.63	2. 14 *	. 02

* statistically significant of .05 level

Table 8 showed the comparison of students' satisfaction of means during post-class with dance instruction model and another model. Students had a higher level of satisfaction towards the integrated dance instruction model (t = 2.14, Sig. = 0.02) which had a statistically significant of .05 level.

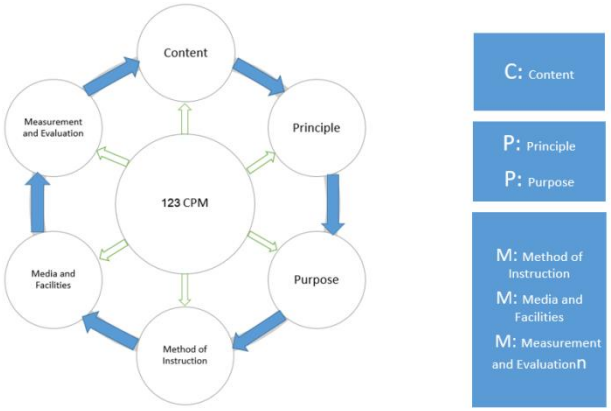

Fig 1: Integration in A dance Instruction model

5. Discussion

From experimenting and assessing the integration in a dance instruction model with beguine rhythm (First 4 weeks) for undergraduate students in General Education at Rajamangala University of Technology, it was found that students were able to develop better dance skills than those who studying with other model which had a statistically significant of .05 level. Also, students' performance studying the integrated dance instruction model was higher, representing a statistically significant of .05 level. Part of the course is evaluating students' dance performance. The educators observe dance performance and skill of students in pairs. Students' performance were classified in 3 groups, A, B and C. Group A consisted of students whose performance reached 80% (5 dances). Group B represented students with less than 80% performance (3-4 dances). Group C included students with less than 50% of all dances (1-2 dances). After the observation and the measurement, the educator divided students into A, B C using TAI method (Team-Assisted Individualization). Students, later, drew tickets for regrouping. Therefore, each group would have mixed skill students. For this reason, students with a strong skill assisted others with lower skill. Students' dance performance came out better at a statistically significant of .05 level. The assessment corresponded to the research of Georgina [13] which investigated the importance of individual assisted team in order to help developing the ability of the students, Hasanuddin University, Indonesia.

As a result, the learning ability and TAI Team (Team-Assisted Indiviualization) were significantly associated. It was very clear that in one classroom, students had different dance skills. The cooperative learning is important as the students would help and discuss with each other in order to share the knowledge and reduce the gab between good and fair student's dance skill. In addition, the students felt fun and satisfied with the cooperative learning. The teaching and learning with small group division is an important method to create efficient students. With help of other good students among the group, it resulted in students' better skills compared to normal learning and teaching method. However, the integration in dance instruction model that researcher had developed applied to the first group of students showed a better result compared to the another group with a normal instruction model at at a statistically

significant of .05 level. Test-retest method was used in cha cha cha rhythm during final 4 weeks with the integrated dance instruction model applied to both groups of students with 2 different educators. The students of both groups had developed a better cha cha cha dance skill during post-class at a statistically significance of .05 level. The comparison of both students' skills with the integrated dance instruction model indicated no difference. The integrated dance instruction model focusing on activities encourage students to develop their skills by using Peer-Assisted Learning Strategies. The better performance students assisted their classmates while the educator was considered as facilitator or a the source of knowledge only. Therefore, the integrated dance instruction model provide students better skills no matter who the educators are. From the results of the experiment and the satisfaction assessment of undergraduate students in General Education of Rajamangala University of Technology towards the integrated instruction mode beguine rhythm, it showed a high level at a statiscally significant of .05 level. Also, the students' satisfaction met all the criteria: objective, educator, content, activitiy, assessment, teaching tool, equipment, location and facility. The mean scores between the integrated dance instruction model and another model were compared. The students' satisfaction towards the integrated dance instruction model was higher than another one at a statistically significant of .05 level. From overall assessment, students are more satisfied with the integrated dance instruction model.

The integrated dance instruction model emphasizing activities in the class and encouraging cooperative learning for small group allowed students to help each other. So, the students had the highest level of satisfaction. According to Kulissara Chitchayawanit [14], it was necessary that the teaching and learning model needed various methods for facilitating students to gain the most knowledge.

6. Recommendations

From the results and skill assessment of integrated dance instruction model for undergraduate students in general education of Rajamangala University of Technology, during first four weeks in beguine rhythm class, students developed a better performance in post-class compared to students who studied with other models at a statistically significant of .05 level. The skill comparison between students who study with integrated dance instruction model and other model shows that students have better performance with integrated dance instruction model. During the final four weeks of the cha cha cha rhythm course, students were divided into two groups with two different educators, one of them also was a researcher. The results of both groups' performance after receiving the training with integrated dance instruction model are higher than the pre-class at the statistically significant of .05 level using Test-retest method.

The performance of both groups represents no difference at a statistically significant .05 level. From the results and students' satisfaction assessment after receiving beguine rhythm class with the integrated dance instruction model, the students' satisfaction was high (mean scores greater than 3.50) at a statiscally significant of .50 level. Furthermore, the students' satisfaction with beguine rhythm is high or highest level and meet all the criteria: objective, educator, content, activitiy, assessment, teaching tool, equipment, location and facility. Also, the students' satisfaction towards the integrated dance instruction model is at a higher level than other models at a statistically significant of .50 level. In summary, the students' satisfaction towards the integrated dance instruction model is higher than any other dance models. In addition, results of this research can be developed for further study and appropriate to students in order to for them to achieve academically. And this research can be adapted in context to each institution.

7. Conclusion

From the results of the experiments, try and evaluate the results of the use of a dance teaching model, combined with a pattern, divided into 2 subsections as follows. 1) The results of the evaluation of the dancing skills of students from the experimental style of dancing teaching were found. 1.1) The results of data analysis to compare dancing skills before and after class. Of the students who studied with the teaching styles, merged styles, and other forms Have higher dance skills after studying than before. 1.2) The results of comparing the average score of dancing skills of both groups of students showed that the students who studied with the teaching style The average score for dancing skills is higher than students who study with other styles of dance teaching. 1.3) The results of data analysis to compare the dancing skills before and after class. Of the students who study with the teaching style Cha Cha Cha Strokes When the researcher teaches And other teachers found that the students who studied with the style of teaching dance Will have more dancing skills after studying than before studying. 1.4) Students who study with a style of teaching dance. Cha Cha Cha Strokes Classified by instructor It was found that before learning dance, both groups of students had no difference in dancing skills. And when considering the average score of the dance skills after the students found that the average score of the dance skills of the students who studied with the style of teaching a mixed styles Cha Cha Cha Strokes With the researcher and other instructors, it was found that the students who studied with the style of dance teaching, a combination of the two groups. There is no difference in dancing skills. 2) The results of assessing student satisfaction from the experimental dance teaching model for undergraduate

students in general education subjects. Of Rajamangala University of Technology found that. 2.1) The satisfaction of the students after the class with the style of teaching dance combined with Begin rhythm at the highest or highest level. 2.2) Student satisfaction after studying with other styles of dance teaching, Begin rhythm was at the highest or highest level. 2.3) Student satisfaction after learning with a dance teaching model with a pattern Cha Cha Cha Strokes Both 1st and 2nd teachers were at the highest or highest level. 2.4) The results of comparing the mean of the difference of the satisfaction score after learning with the style of teaching dance model combined And other styles of dance teaching, it was found that the students were satisfied with the teaching styles of the combined styles more than the other styles of dance teaching.

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