

## THE EFFICACY OF THE FLIPPED CLASSROOM METHOD IN IMPROVING DANCE SPORTS SKILLS AMONG TEENAGERS

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**ABSTRACT** – This study aimed to determine how well the Flipped Classroom model improved dancing athletic skills at the Dalian Learning Center. With 30 respondents for the experimental group instructed to utilize the Flipped Classroom approach and 28 respondents for the control group, this quantitative research uses a quasi-experimental methodology. Pre-test, post-test, and checklist are the instruments that are employed. Pre- and post-test instruments were used to compare the performance of the experimental group and the control group in terms of essay writing. The checklist tool was used to examine the content processing elements of the pupils' essays. The content processing features of the students' essays were examined using the checklist tool. The Statistical Package for Social Science Software (SPSS) Version 23.0 was used to analyze the data that had been collected. T-test analysis was used to analyze the study's findings further. Compared to a mean score of 14.00 and a standard deviation of 3.620 for the control group, the experimental group's mean score was 20.64 with a standard deviation of 2.244, indicating better outcomes. Teachers can use the findings of this study to apply the Flipped Classroom Method better efficiently and methodically on various topics or student points.

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## INTRODUCTION

The need for transformation in the national education system needs to be emphasised starting from the early education level as it is an important foundation in developing and advancing human capital and a catalyst for development. development for a country. Therefore, efforts to improve the national education system must be made immediately.

Teachers should diversify their teaching styles in line with the demands of technological globalisation. This is supported by the statement of Chekhovska et al. (2020), who said that educators should diversify their teaching methods and emphasise student diversity, as the education system now emphasises student-centred teaching methods. Student-centred teaching methods. This is because student-centred methods can help students build and improve knowledge directly based on social interaction with other students competitively based on teacher guidance. (Metalnikov, et al., 2020). The Flipped Classroom method is among the pedagogies or teaching methods that can integrate these elements.

Furthermore, the Flipped Classroom method requires students to understand a certain concept or topic in a particular subject through self-study before the in-class PdPc session occurs. This may be difficult for some students as it requires them to understand, think and solve independent tasks outside class. The Flipped Classroom-based teaching method can provide opportunities and space for students to manipulate a learning material before the actual teaching and learning session (PdPc) takes place in class. Therefore, the time-space for teaching and learning activities in the classroom can be focused on activities that involve friends and teachers that are less emphasised in teaching with conventional methods.

Thus, a form of technology-integrated pedagogy can provide student-centred teaching and learning activities even with many students and need not take a long time. Long teaching time and diversified PdPc methods must be established. Therefore, one teaching method that suits these characteristics is the Flipped Classroom teaching method. Implementing pedagogy with the Flipped

Classroom method has been empirically proven to have an effect in addition to allowing teachers to diversify their teaching methods further.

This student engagement is more geared towards hands-on activities or integrating technology into a teaching or learning session. One of the best ways to incorporate all the elements without the teacher increasing teaching time or neglecting a student's measurements and the syllabus is using the Flipped Classroom. Flipped Classroom-based learning has been empirically proven to be effective overseas and needs to be done more, especially in dance.

In the essay writing learning session, students were seen to have limited experience. This caused them to lack ideas in dance sports due to the lack of existing knowledge in skills and knowledge and knowledge. Therefore, they need to be exposed to good dance sports independently and teacher guide with technology integration.

Through these problems, relevant teaching approaches can be applied in PdPc sessions so that students can master dance sports skills well. Therefore, a study on this matter needs to be conducted to determine the extent of the influence of the Flipped Classroom method compared to the traditional approach in improving student achievement. The general objective of this study is to determine the effectiveness of the Flipped Classroom method in improving students' skills in dance, specifically at Dalian Teaching Centre. The specific research objectives of this study are:

1. To identify the difference in students' achievement levels for dance sports by using the Flipped Classroom method.
2. To identify the effectiveness of using the Flipped Classroom method from the aspect of dance sports skills.

## **LITERATURE REVIEW**

Based on research conducted by Bakiko (2020) and Lai & Hwang (2016), teaching the Flipped Classroom has been applied at various levels of education. This student-centred teaching method has been widely adopted in various fields abroad. This student-centred method can help improve the interaction process between teachers and students. Execution Flipped Classroom can increase achievement levels and engage students comprehensively based on the learning activities provided in this method (Zhamardiy, 2020).

Studies on using the Flipped Classroom teaching method in the Chinese educational context have been conducted through various fields and levels of education ranging from preschool to university education. However, Flipped Classroom learning needs to be improved because, according to Escobar (2018), this method is less explored, especially in dance. (Zhu et al., 2019) said the Flipped Classroom method had become the focus of educational institutions and is currently widely implemented at the school level. However, according to López-Quintero (2019), research on the Flipped Classroom method is still limited.

In teaching dance sports, one of the studies conducted is by Brown, J. P. et al. Al. (2017) who have conducted a study on the Flipped Classroom method in learning dance sports for students at Dalian Teaching Centre using videos. Their learning outcomes were very encouraging as students were found to be more active in interacting with the teacher. This shows the flexible and suitable use of technology and suitable technology can improve the quality of PdPc in dance sports. Furthermore, a study on the method of Flipped Classroom has also been conducted by Danial Heryanto (2018), who has conducted a study on using videos to increase dance sports knowledge. His study found that student performance in examinations had improved, including their motivation to learn continuously with the Whatsapp application. This shows that this method can help improve student performance in learning.

This case is identical to the study of Tetty Juliana (2018), who has written a study on learning literary genres through Flipped Classroom. The study found that the students were more willing to assess. In addition, students can also improve their high level of thinking through PdPc, which is based on the Flipped Classroom learning model and group learning.

Among the studies of Flipped Classroom methods in higher learning institutes in Malaysia is Wong, T. M. study (2019), which explains the initial exploration of implementing Flipped classrooms on the Universiti Curtin, Sarawak campus. The results of his study have found the behaviour and performance of students towards learning to be better and positive; therefore, this Flipped Classroom learning strategy is seen as one of the best platforms for collaborative learning, knowledge development, and saving teacher time in the classroom. However, there is a slight issue initially about augmenting the learning culture among students due to the exchange of student-determined teaching methods. This shows that implementing Flipped Classroom can increase knowledge and overcome the lack of time in the aspect of assisting classroom instruction.

The research findings are consistent with the case study of Dorothy DeWitt et al. (2014), which was conducted with ten undergraduate students of a research methods course housed at University Malaya to look at their perceptions of the use of materials, effects, and implementation of Flipped Classroom. PowerPoint slides and videos were the teaching materials that had been used before the start of the class. The results showed that students could learn well using the Flipped Classroom strategy using both materials. Learner knowledge and performance knowledge and achievement were also seen to have improved through the implementation of the Flipped Classroom; students also said the use of this strategy was able to help make good use of time in a learning session.

Ultimately, studies on the Flipped Classroom method have shown that it can result in high learner engagement and motivation in teaching. However, studies on using the Flipped Classroom method in teaching dance sports still need to be reproduced, especially in teaching. Therefore, the reviewer would like to examine the effectiveness of the use of the Flipped Classroom method in improving dance skills as well as student achievement levels.

## **METHODOLOGY**

The strategy utilised in this study, which was guided by the instructions given by Tranfield et al. (2003), includes three steps: (1) preparing the retrospect, (2) carrying it out, and (3) reporting and discussing the results. (Tranfield et al., 2003, as cited in Rejeb et al., 2022).

In this paper, the qualitative data analysis and literature research approach are used to assess significant studies on POA in higher vocational colleges in China from the beginning of 2017 to 2022. CNKI, as most Chinese researcher's reputable database, is used as the source of data for this paper and its superior retrieval capabilities are used to strengthen the research's dependability. The literature type is set to all the related literature from 2017 to 2022, and the keywords are Production-oriented Approach and Higher Vocational English.

This study aims to sort out the appliance of POA in higher vocational colleges' English teaching classes and speculate the trend of POA, find out the limitations by reviewing the POA research paper published in Chinese academic journals.

The conduct of this study was based on a quantitative investigation and took the form of a quasi-experiment. Earl (2013) has said that experimental designs are conducted for illumination, and account. Thus, this quasi-experimental research design was chosen due to its suitability for measuring effectiveness.

The study ran for a duration of eight weeks, with PdPc sessions implemented twice a week. During each PdPc session, the control group received instruction using a conventional approach, while the experimental group utilized the Flipped Classroom method. The teacher's teaching session was carried out, with the teacher circulating videos and articles about dance before the class began. Dance sports before class started. The videos or articles were scrutinised by students before the actual discussion and learning began in the classroom using the concept of 'learning before learning' during each PdPc session.

The sample of this study is the students of the Dalian Teaching Centre. Two equal classes were selected to conduct the experimental study. A class with 31 students was chosen to represent the experimental group taught about essay writing using the Flipped Classroom method. Meanwhile, the control group was selected from a class of 28 students. These two sample groups were chosen based on

comparing the two means for the pre-test of both classes, which showed no significant difference with a value of  $t(57) = -1.135$ ,  $p > 0.05$ . The significance value of 0.261 is greater than the significance level of 0.05, indicating that the performance of the two sample groups is equivalent. The instruments used in the study were a set of pre-test and post-test questions and a checklist to look at aspects of the respondents' knowledge and skills in dance sports.

The researcher and the Chairperson of the Dance Sports Committee developed a set of pre-test and post-test question instruments together at the Dalian Teaching Centre during the study. Through this instrument, two questions related to dance and sports skills are presented, and students will only choose one question, like the actual exam question, which is like the actual exam question. Both the control and treatment groups will undergo a pre-test prior to the onset of the flipped classroom teaching session. Following the treatment session, a post-test will be administered to assess the performance levels of dance students.

## ANALYSIS AND DISCUSSION

Differences in student achievement levels for dance sports using the Flipped Classroom method.

Pre-test and post-test questions were given to determine if there was a difference in student performance in dance using the Flipped Classroom method. Table 1 compares the two pre-test means of the experimental and control groups, which means there is no significant difference with a value of  $t(57) = -1.135$ ,  $p > 0.05$ . The result of this finding shows a significant value of 0.261, exceeding the threshold of significance of 0.05. This indicates no significant difference in the level of dance sport achievement for the mean score of the overall pre-test score between the experimental and control groups. The pre-sport dance test scores between the experimental and control groups were equivalent.

**Table 1.** Independent t-test for dance sports performance level for a pre-test of experimental and

Group	Mean	Min Standard	Standard deviation	F	df	p
Experiments	13.83	-1.222	4.290	-1.135	57	.261
Control	12.61	-	3.928			

Pre-test and post-test questions were given to determine if there is a difference in student performance in dance based on the Flipped Classroom method. Table 2 compares the mean scores of the post-test of the control group and the experimental group. Furthermore, the experimental group's mean score of 20.64 with a standard deviation of 2.244 showed higher findings when compared to the mean score for the control group, which is 14.00 and a standard deviation of 3.620. The mean difference between the two groups was 6.640. An independent t-test analysis found a significant difference in the level of dance sports performance for the mean score of the overall test score. Post between the experimental and control groups with a value of  $t(57) = -8.557$ ,  $p < 0.05$ .

The overall average score in the post-test indicated a significant difference in the performance levels of dance sport students between the experimental and control groups. Specifically, the experimental group, instructed with the Flipped Classroom method, demonstrated higher and superior performance in essay writing compared to the control group taught with the traditional method.

**Table 2.** Independent t-test for post-test dance performance level for experimental and control groups.

Group	Mean	Min Standard	Standard deviation	F	df	p
Experiments	20.64	-6.640	2.244	-8.557	57	.000

Control	14.00	-	3.620
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This is in line with the research findings of Renata (2018) in her research also showed that the group of students who used the Flipped Classroom method had higher writing results than students who used the traditional method. Based on research by Mervat (2016), the experimental group's dance sport post-test results were higher and better than the control group using the Flipped Classroom method, positively improving dance sports skills. Fatemah Mohammadreza's (2018) research also found that writing using Flipped Classroom can improve students' dance quality compared to other methods.

This skill enhancement in dance sports occurs based on the principles of the student-centred Flipped Classroom method. This can increase their active involvement and improve their understanding of learning. This is to the statement of Sergis S (2018) that the Flipped Classroom method can potentially improve student performance and active engagement through student-centred learning activities.

Based on the experimental group's post-test results, the dance exercise produced looks better and is of higher quality than the control group. In line with the research of Y. Wang & G. Zheng (2020), who found that the essays produced by students were of higher quality using the Flipped Classroom method. Technology such as videos in this study can improve students' skills in producing good dance sports.

This implies that the use of technology plays a crucial role in facilitating this positive transformation. According to Y. Chen's (2021) statement said that using teaching methods and various aids and paying attention to students' different bits of intelligence can result in effective student learning. Tetty Juliana Sujono (2018) also said that teachers should choose various teaching aids to enhance their creativity and interest in learning.

#### ***The Effectiveness of Using the Flipped Classroom Method from The Aspect of Dance Sports Skills***

The use of the Flipped Classroom method in this study was also carried out to see if there were differences in the aspects of dance sports in the experimental group that had used the Flipped Classroom method. The average achievement of dance sport aspects in the pre-test and post-test of the experimental group can be seen in Table 4. The results showed that the average mastery of dance sports aspects in the post-test was higher when compared to the average for the pre-test. The average performance of dance sports aspects in the pre-test was 12.2 with a standard deviation of 1.643, while the post-test showed 26.0 with a standard deviation of 3.162.

**Table 3.** Average performance level of dance sport aspects of the trial group at pre- and post-test

Group	Mean	Min Difference	Standard deviation
Pra-Test	12.2	-	1.643
Pasca - Test	26.0	13.800	3.162

Furthermore, paired sample t-test data for the pre-test and post-test of the experimental group are based on Table 4. Through the table, the t-test value between the pre-test and post-test of the experimental group was found to have a significant average difference with a value of  $t(30) = -3.646$ ,  $p < 0.05$ . This indicates an increase in the dance sport aspects of the experimental group when using the Flipped method. This shows an increase in the dance sports aspect of the experimental group when using the Flipped Classroom method. Classroom method. This shows a significant difference in the performance level of processing aspects through dance exercises on the experimental group's pre-test and post-test mean scores.

**Table 4:** Dependent t-test for dance performance levels of the experimental group in pre and post-test mean scores.

Group	Mean	Min Difference	Standard Error	t	df	p
Pre – pasca Test	13.80	2.167	9.69	-8.557	30	.000

Table 5 indicates that the experimental group achieved a higher mean score of 26.0, with a standard deviation of 3.162, in comparison to the control group, which obtained a mean score of 15.6, with a standard deviation of 1.949. Furthermore, the t-test revealed a substantial disparity in the performance of the essay writing skills test, with a t-value of 15.011 (df = 57, p < 0.05). This highlights a noteworthy variance in the level of accomplishment in dance sports between the experimental and control groups based on the mean post-test score.

**Table 5:** A comparison of means using a t-test for dance sport show levels for post-test mean scores of controls and experimental groups.

Group	Mean	Min Difference	Standard Error	t	df	p
Experiments	26.00	-10.400	3.162	-15.011	57	.000
Control	15.6		1.949			

The findings above prove that using the Flipped Classroom method helps students dance better and fulfils the characteristics of excellent dance sports. Renata's (2018) research results found that students agreed that using the Flipped Classroom method helped them understand and facilitate the learning of dance sports in the classroom. This contributed to their performance level.

The comparison of the mean scores for the experimental group looks better when comparing the average scores observed in the control group. Furthermore, an appreciable difference was the mean differences observed in the T-test for the performance standard of the processing aspect of essay writing derived from the mean scores for the control group's post-test and experimental groups. This results the Flipped Classroom Method has proven effective in assisting and provide positive effects for students in dance sports by being more organised and on task.

Renata's (2018) also said that students felt that using video in learning through Flipped Classroom made teaching dance sports easier and more interesting for specific learning content and developing talent in dance sports. This shows the use of technology and video in the context of this research can improve student performance, specifically at Dalian Teaching Centre.

Using the Flipped Classroom method in essay content processing for the experimental group also applied thinking skills that resulted in clear, structured, and creative tasks. Therefore, this method can help students improve skills or basic knowledge about dance sports. This is in line with the research of Nogueira (2015), who found the results of dance sports using the Flipped Classroom method. The flipped Classroom method makes students more sensitive in an activity carried out and able to complete their assignments in a creative and different style according to video recommendations before class begins. Learning. Mervat's (2016) research also showed that the use of the Flipped Classroom method for the experimental group improved good skills.

## CONCLUSION

Overall, the results of this study show that the Flipped Classroom method has helped students improve their level of mastery and performance of dance sports skills. Furthermore, this method also serves to help improve student achievement. This means that using the Flipped Classroom method, which emphasises the integration of technology and collaboration based on student-centred teaching, can have a good effect in producing students who are competent in dance sports skills, especially in the Dalian Teaching Centre.

The results of the study also show positive findings. However, this study's respondents are students with good dance skills. Different results can be obtained if conducted on respondents who have low dance sports skills. Therefore, it is suggested that a study using the Flipped Classroom method be conducted on students who do not have a foundation in dance sports, especially for students who study in intensive schools and lack knowledge and skills in dance sports.

In conclusion, Flipped Classroom should be used as the latest teaching and learning method because it is in line with the current globalisation, and the generation closer to technology needs to be given attention by educators to be applied directly in the education system in China. This is one of the most effective ways to combine elements to produce a more effective PdPc.

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