

# Experimental Research on Cooperative Learning in Basketball Teaching

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**Keywords:** Basketball Teaching; Cooperative Learning; Experiment; Research Method

**Abstract:** In recent years, along with the continuous development and steady progress of society, it can be said that technology has become an indispensable part of our life, and the social division of labor has become clear. Every industry has already divided its work at work. Confirm and then complete the teamwork. It can be said that education is basically the same. Each class belongs to the whole of education. Students and teachers are the branches of this whole. In order to achieve better teaching results, students need to cooperate effectively with teachers. Based on this, in the current basketball teaching process, students and teachers naturally belong to the two branches of teaching, but even though this still requires a benign teacher-student interaction between the teacher and the classmates, the learning effect can be improved. Cooperative learning is precisely a way to achieve the best learning outcomes in basketball learning. Based on this background, this paper focuses on several different research methods, in order to prove that the cooperative learning method can play a very positive role in the current basketball teaching.

## 1. Introduction

It can be said that one of the most popular ball games for students at school is non-basketball. Basketball is a group activity that requires teamwork to complete. In the process of basketball, students can not only form a collective consciousness, but also promote the formation of an effective team spirit. Cooperative learning is mainly about the formation of benign cooperation between teachers and students, the development of students' knowledge, and an interest in students' self-directed learning. In the teaching process of basketball, the use of a wider range of learning forms is not a cooperative learning [1]. This article uses experiments to study and summarize the cooperative learning forms in basketball teaching.

## 2. Experimental Objects and Methods

### 2.1 Experimental Object.

There are two basketball experimental classes, including 42 students and two basketball control classes, including 45 students.

### 2.2 Research Methods.

Through five different research methods to summarize the cooperative learning methods in basketball teaching, the five research methods mainly include literature research method, experimental research method, questionnaire research method, mathematical statistics research method and comparison method. The following is a detailed analysis and summary of these different methods. Literature research method: The research method of literature data is mainly to consult the papers related to student quality education and cooperative learning between teachers and students in the process of cooperative learning. The way of accessing the literature can be consulted in the library. At the same time, Internet technology can be used to access the information needed for cooperative learning. The literature research is the main theory of this experiment, which can successfully complete the research. Provide the theoretical foundation needed. Experimental research method: This experiment is mainly to give the basketball class an appropriate comparison in the current learning basketball, analyze the impact of the cooperative learning mode on the basketball learning process in the current basketball teaching process, and thus the cooperative

learning mode in the current basketball learning process. The specific effects played are summarized. Questionnaire research method: The questionnaire survey is aimed at the relevant teachers of the experimental research and the students who learn basketball. The questionnaire survey is conducted for the teachers, and the teachers put forward some evaluations of the students in the basketball learning process to make the cooperative learning method effective [2]. Questionnaire surveys of students enable students to elaborate on the advantages and disadvantages of cooperative learning methods during the current stage of basketball learning. Mathematical statistics research method: In the process of students using cooperative learning to learn basketball, it is necessary to count the students' own academic achievements, and use the learning results as a comparative test to analyze the feasibility of using this method for teaching. Statistical software is used to effectively count the students' average and standard deviations, and to match and test the logarithmic values. Comparative research method: Compare the effects of basketball learning between two groups of basketball students, and all the data generated during their own learning are effectively compared so that they can keep the cooperative learning effect accurate.

### 3. Experimental Design and Operation

#### 3.1 Experimental Content Design.

The experimental class and the basketball contrast class of basketball use different teaching methods respectively. The experimental class in basketball mainly uses the cooperative way to complete the basketball learning, while the basketball contrast class still uses the teaching form of the previous basketball. The content of teaching in the basketball experimental class is mainly to teach the basic theory and basic knowledge of basketball, so that students can master the basic concepts of basketball, and then teach the basics of basketball to students after mastering certain basic concepts. The time of the experiment in this experiment is consistent with the time of the specific experiment. This experiment is often a total of three months, divided into 64 hours to complete the teaching. And at the beginning of this teaching experiment, it is necessary to carry out statistics on the current students' own information. The contents of the statistics mainly include the height and weight of the students and the time of contact with basketball. Then, the students in the two classes are compared. In the process of comparison, it is necessary to guarantee that the basic conditions of the students themselves are not greatly different. The comparison table is shown in Table 1.

Table 1 Comparison of basic conditions of students before the experiment

	age	height	body weight	30 meters running	Standing long jump	Run-up touch	Contact time
test group 42	21.50±1.04	181.10±5.27	72.90±4.41	4.23±0.20	2.76±0.03	3.03±0.03	1.10±0.03
Control group 45	21.40±1.02	181.40±5.23	73.40±4.39	4.25±0.15	2.75±0.05	3.02±0.04	10.9±0.04
P	>0.05	>0.05	>0.05	>0.05	>0.05	>0.05	>0.05

#### 3.2 Experimental Implementation Process and Operation.

First, after having an overall statistics on the student-based information, all the students are divided into four groups, and the criteria for grouping are mainly based on the student's own body and the student basketball technique as a reference for grouping. After the grouping work is completed, each group also needs to select a student with relatively good grades and management skills as the leader. The task of the team leader is to organize the students in the group to discuss the tactics before the class. At the end of the basketball course, the team members will sum up the technical experience learned in the class and complete the technical exercises [3].

Secondly, the basketball teacher also needs to briefly introduce the content that needs to be learned in the next lesson within a few minutes of the end of the class, and then assign the student to the specific learning task. The learning task needs to be consistent with the goal of basketball teaching. It also needs to be consistent with the hours specified in basketball teaching. In the

process of setting up teaching tasks, relevant books and videos are needed as assistants. In order to carry out the task of being shy, it is still necessary for students and teachers to cooperate together. Students need to discuss and learn with each other to find suitable learning method. After the completion of the learning task, if the student encounters a problem that cannot be solved quickly, then the teacher can consult the teacher. The teacher can provide the student with the necessary reference materials to help the student solve the problem and answer the student question. Need to be patient. The group effectively completes interactive learning, exchanges experiences, and quickly masters the basketball they have learned, and quickly completes the set learning goals. Teachers also need to pay attention to the guidance of students when they provide help to students, so that students can improve their learning and technical skills, so that students can gain more basketball knowledge and skills from the teaching and self-learning of teachers.

#### **4. Experimental Results and Analysis**

##### **4.1 Analysis and Comparison of Technical Assessment Results.**

The excellent rate and good rate of the test scores of the experimental group and the failure rate were better than those of the control group. The excellent rate in the experimental group was 7.94 percentage points higher than that of the control group, while the experimental group and the control group compared with the good rate, it exceeded 12.54%. The excellent rate was much higher than that of the control group. However, the experimental group did not show a failure rate at present, while the control group had a 2.22% failure rate. Before the experiment, the scores of the experimental group were compared with those of the control group. There was no difference in the scores between the two groups. Before and after the experiment, there was a very significant difference between the experimental group and the control group. The results on basketball also have a very obvious improvement; after the experiment, the control group and the experimental group also have very obvious differences with each other. The current performance of the experimental group is obviously much better than the control group. This situation also illustrates the use of cooperation. The effect of the experimental group on the teaching method is very obvious [4].

##### **4.2 Analysis of Tactical Mastery.**

Through the use of cooperative learning in the experimental group to complete the basketball teaching, it can be seen that the experimental group is not only the mastery of basketball tactics, but also the use of tactics is much better than the students in the control group. In terms of the use of basic tactics, the success rate of the experimental group increased by 15.3%, while the control group only increased by 6%. However, in the rational use and cooperation of the defensive basic tactics, the success of the experimental group and the experiment The rate increased by 17.9% compared with the previous year, and the success rate of the control group increased by 12.7%.

##### **4.3 Teacher Evaluation and Students' Self-evaluation Analysis of Ability Cultivation.**

Comparing the effects of the experimental group and the control group on the ability of ability training, it can be seen that the teacher has very much evaluation on the five points of teaching, refereeing, observation, analysis, or expression for the experimental group and the control group. The obvious difference, this situation also shows that the experimental group has a much higher ability to master the above five aspects than the control group, and the teacher's recognition of the experimental group's own ability is far beyond the control group's ability.

#### **5. Effective Methods of Cooperative Learning Mode in Basketball Teaching in Secondary Vocational Schools**

Most of the students like to express themselves. As a physical education teacher in middle school, they need to refer to each student's own characteristics to guide students, and develop learning methods and learning tasks that suit their own characteristics, so that every student can learn

cooperatively. Basketball is not a sport that one can accomplish. It needs the help and cooperation of the team to complete it. Therefore, students need to fully realize the main role of cooperation, whether in the process of learning. Or it will be like this in the future when you step into social work. Everything if you want to do your best is inseparable from the support and cooperation of your partners. In the current cooperation of secondary vocational basketball, students need to be grouped, and the number of people in each group also needs to be controlled. If there are too many people in the team, there will be a chaotic teaching scene, which will not be conducive to completing the learning task. Under the cooperative learning mode, the basketball teaching will be completed, so that students can use the form of cooperation to complete the training objectives, find out the shortcomings of the students themselves and actively ask the students to correct them. And when the specific training is carried out, the teacher can also be properly integrated into it, which can make the relationship between teachers and students more harmonious, and also can promote the learning of basketball skills of students well, in addition to the teaching process. There is also a need to effectively develop a sense of cooperation among students, so that students can better understand the meaning of cooperation [5].

## **6. Conclusion**

In the form of cooperative learning in basketball teaching, students have a very significant improvement in the ability to master technology and tactics and the rational use of technology and tactics compared with students in traditional basketball teaching classes. The training is also obviously better than the traditional teaching methods. The cooperative learning method can highlight the role of the student's learning subject and the leading role of the teacher's teaching. In addition, it can strengthen the students' self-learning awareness and strengthen the opportunities for learning basketball and basketball communication.

## **References**

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