

# Physical Intelligence Project on the Physical Function of Preschool Children in Xi'an

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**Abstract**—Physical activity of preschool children is a very important part of preschool education. It has been playing an important role in the education of preschool children. In order to achieve comprehensive development of preschool children, physical education has become an indispensable factor. This paper carried out intelligent project of teaching in kindergarten teaching, studied preschool children's physical body function, used experimental and comparative methods, took 200 preschool children aged 4-6 years in kindergarten as research objects, and finally concluded that the implementation of physical intelligence project has a certain positive effect on 4 to 6 years old preschool children's body. At the same time, it is found that the physical intelligence project has a significant promotion effect on the basic physical quality of preschool children, which will play a positive role in guiding and promoting the development of our physical intelligence project in the future.

**Keywords**—Body intelligence; Pre-school children; Physical function

## I. INTRODUCTION

Body smart project course first comes from the island of Taiwan province in China, is by the Taiwan km, promotion and application of Mr Body intelligence (Kinesthetic intelligence (Kinesthetic intelligence), his main purpose is to make the preschool children's physical ability was improved in the sports games, the excavation of the preschool children body potential, increase the preschool children's ability to adapt to society, to cultivate its own independent features, in a variety of sports game, let the children from different dimensions and space to perception and know the outside world, thus form the thinking pattern of diversified teaching mode and idea. As a new sports activity characteristic project for preschool children, physical intelligence project has obvious advantages in teaching activities for traditional preschool children, and plays an important role in physical and mental development and improvement of physical function of preschool children.

## II. RESEARCH OBJECTS AND METHODS

### A. Research objects

The research object is to study the effect of the physical intelligence program courses in some kindergartens in xi 'an on children's physical function quality.

### B. Research methods

#### 1) Literature and data method

Through China knowledge network, shaanxi preschool normal university library and other relevant literature materials, books, electronic journals and other related researches on body intelligence, this study will provide help to the influence of body intelligence on the physical function of preschool children.

#### 2) Experimental method

By grouping the subjects in this study, one group was divided into a control group and the other group was an experimental group, and physical intelligence project courses were carried out. The relevant results were compared and analyzed to reach the conclusions of this study.

#### 3) Mathematical statistics method

Microsoft Excell2010 was used to collate, summarize and analyze the relevant data collected in the test, and to obtain the relevant data analysis of this study.

## III. RESULTS AND ANALYSIS

### A. Research on improving children's sports ability of the physical intelligence project

According to the survey of preschool children in the kindergartens visited (see table 1), 97% of the boys and girls of preschool children like the courses of physical intelligence program, and 92% of the girls and girls of preschool children like the courses of physical intelligence program. According to the table analysis, we can clearly know the entertainment and fitness of children's physical intelligence program courses. At the same time, we can find that boys prefer physical intelligence programs to girls. However, we also found that some male and female students are not so interested in physical intelligence courses. The research shows that it is feasible to

promote physical intelligence program in kindergartens. At the same time, the interest and enthusiasm of children in sports programs can be refreshed, which not only makes preschool children happy in body and mind, but also makes preschool children gain something in teaching<sup>[1]</sup>.

TABLE I PRESCHOOL CHILDREN'S PREFERENCE FOR PHYSICAL INTELLIGENCE PROJECTS(N=200)

Category	really like	like	Generally like	dislike
B	83%	10%	4%	3%
G	70%	10%	12%	8%

*B. Comparison of relevant indicators of preschool children before two groups of experiments*

Test before the experiment, the analysis of the related parameters of two sets of preschool children, found that two groups of preschool children is not a big difference of relevant indicators, namely explain the significance of two groups of related indexes of preschool children are not obvious, no significant difference, once again showed that both groups of internal factors are the same, there is no research of the difference of object, further reducing the effects of internal factors on test results, etc.

*C. Comparison of physical indicators of pre-school children before and after the two groups of experiments*

Through experiments, we measured the correlation data between the two groups after training for two months. In addition to the standing in situ long jump program, other test results of preschool children showed different improvements.

TABLE II COMPARISON OF INDICATORS OF THE CONTROL GROUP BEFORE AND AFTER THE EXPERIMENT(N=100)

category	Test	X ± S	P
height(cm)	before	109.3 ± 5.2	>0.05
	after	110.2 ± 5.3	
weight(kg)	before	20.4 ± 4.1	<0.01
	after	21.5 ± 4.3	
15 M acceleration run(s)	before	8.9 ± 1.3	<0.05
	after	8.4 ± 1.2	
20 M Opening and closing(s)	before	12.2 ± 1.1	>0.05
	after	13.4 ± 1.4	
20 M One foot jump(s)	before	16.2 ± 1.0	<0.05
	after	15.3 ± 1.2	
Sitting posture(cm)	before	7.3 ± 3.2	<0.05
	after	7.9 ± 3.4	
Standing in the long jump(cm)	before	71.2 ± 16.4	>0.05
	after	70.6 ± 15.7	
Softball throwing distance(m)	before	3.5 ± 1.2	<0.05
	after	3.7 ± 1.4	

Because 15 meters speed run, open jump 20 meters and single foot jump 20 meters and other items are time class, according to the amount of time to determine the result, that is, the shorter the time used in the test, the better the performance. Among them, the weight of preschool children increased before and after the test, and the difference was obvious (i.e. Among the indicators of basic physical quality, the 15-meter accelerated running and the improvement of the forward bend performance of the sitting posture, the distance of standing in place for long jump decreased, and there were obvious differences between the three indicators. In addition, there was no significant difference in throwing distance, jumping 20 meters on one foot and jumping 20 meters on the other three softballs (P>0.05). At the same time, the running ability of preschool children showed a good level, and the jumping ability decreased, which may be caused by the increase of weight and the slow growth of leg strength. This is also in line with the physical development of preschool children.

*D. Comparison of test data in the experimental group before and after the experiments*

The comparison and analysis of data we know, body height and weight after intelligent experimental practice preschool children, and 15 metres sprints and softball throw far, 20 meters open jump hop and 20 m test indexes such as ascending to a certain extent, in the preschool children's height and weight of the group have significant changes ( $P < 0.01$ ), and softball throw far and 20 meters hop two difference is significant ( $P < 0.01$ ); In particular, the 15 - meter accelerated running and 20 - meter open and close jump also improved. Based on the comprehensive experimental test data, it can be seen that the physical intelligence project has a great promotion effect on the physical development and growth of preschool

children, and the strength and speed quality have been greatly improved and developed. The flexible quality and explosive power of preschool children are not significantly improved, which needs to be further developed. At the same time, this is the physical intelligence project curriculum in the establishment of preschool children's explosive quality and flexibility curriculum content design is insufficient or relatively inadequate [3].

TABLE III COMPARISON OF INDICATORS OF THE CONTROL GROUP BEFORE AND AFTER THE EXPERIMENT(N=100)

category	Test	X ± S	P
height(cm)	before	110.3 ± 5.4	<0.01
	after	112.2 ± 5.7	
weight(kg)	before	20.6 ± 3.9	<0.01
	after	22.3 ± 4.1	
15 M acceleration run(s)	before	8.8 ± 1.2	<0.05
	after	8.2 ± 1.0	
20 M Opening and closing(s)	before	13.5 ± 1.2	>0.05
	after	12.9 ± 1.5	
20 M One foot jump(s)	before	15.8 ± 1.2	<0.01
	after	14.9 ± 1.0	
Sitting posture(cm)	before	7.2 ± 2.8	>0.05
	after	7.8 ± 3.0	
Standing in the long jump(cm)	before	72.4 ± 15.6	>0.05
	after	71.7 ± 16.1	
Softball throwing distance(m)	before	3.5 ± 1.4	<0.01
	after	4.0 ± 1.6	

*E. Effects of the physical intelligence program on pre-school children's physical function indicators*

In accordance with test methods, we at the beginning of the study is mainly aimed at pre-school children intelligence physiological indexes related receptors to test the influence of project curriculum, we according to the requirements from the two groups in the experiments of extraction could reflect the power quality, speed quality of preschool children, jumping ability and endurance quality of intelligent project curriculum practice, after the two groups of preschool children randomly selected related physiological indexes before and after the experiment of testing work (on heart rate). The test group did not have an average pulse test of 109b- 135b/min between 4 times of the same load intensity and the specified length of preschool children. At the same time, the relevant results of the test are consistent with the previously set load intensity, and the movement index of the 4 physical intelligence courses is 1.76, 1.74, 1.71 and 1.66. According to the test results, the exercise load intensity of this physical intelligence course is moderate. At the same time, it also belongs to the program setting of

aerobic exercise, which has a good promotion effect on improving and improving the cardiopulmonary function of preschool children. Aerobic exercise is conducive to the improvement of preschool children's physical health and physical function. After passing the test, we found that: Test group of preschool children in the test during the start and end, parents generally said joint venture of exceptionally good quality sleep at night, and appetite is also increased, debugging and partial eclipse bad habits before had the very big improvement, individual can concentrate for longer periods of time, and the willpower and personal emotions have a good performance, especially the test over a long period of time less child had a fever and body uncomfortable situation, such as a cold, this also reflected from another Angle, the body of the smart program for preschool children have played an important role in improving and improve immune system, the control group after the test performance is poor. It can be seen that the child body intelligence project has certain promotion function to its body function.

#### IV. CONCLUSIONS AND SUGGESTIONS

(1) Long-term physical intelligence teaching plays a significant role in improving and improving the physical quality of preschool children.

(2) The physical intelligence course plays a great role in promoting the change of traditional teaching activities in kindergartens. At the same time, it can attract the learning interest and enthusiasm of preschool children to the greatest extent, which is more conducive to the development of teaching activities.

(3) Through the test, we can see that the results of the comparison experiment are obvious, and that the physical intelligence course plays a significant role in improving and improving the physiological function of preschool children, and the effect is also good.

(4) The promotion value of physical intelligence courses in kindergartens is still relatively high, but the implementation process must control the intensity and exercise mode of sports, pay attention to the health and suitable age characteristics of preschool children.

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