Horizon J. Hum. & Soc. Sci. Res. 5 (1): 189 – 194 (2023)

Journal of Humanities and Social Sciences Research
www.horizon-JHSSR.com

RESEARCH ARTICLE
Peer-reviewed | Open Access

Research on the Practical of Internal and External Integrated Teaching Mode in University's Public Physical Education Curriculum of China

Zhibin Hu[1]* and Jiraporn Chano[2]

[1,2]*Curriculum and Instruction Department, Faculty of Education, Mahasarakham University, T. Talad A. Maung, Thailand*

ARTICLE INFO

Article history
Received: 16-Aug-22
Revised: 05-Oct-22
Accepted: 21-Oct-22
Published: 30-Jun-23

*Corresponding Author
Zhibin Hu
E-mail: huzhibin1990@126.com

Co-Author(s):
Author 2: Jiraporn Chano
E-mail: jiraporn.j@msu.ac.th

Citation: Zhibin Hu and Jiraporn Chano (2022). Research on the Practical of Internal and External Integrated Teaching Mode in University's Public Physical Education Curriculum of China. Horizon J. Hum. Soc. Sci. Res. 5 (1), 189–194. https://doi.org/10.37534/bp.jhssr.2023.v5.n1.id1176.p189

ABSTRACT

Based on teaching experiments, questionnaire surveys, literature materials and mathematical statistics research, guided by the goals of China's physical education curriculum and combined with the physical education curriculum practice in colleges or universities, this paper focuses on the practical exploration of internal and external integrated teaching mode. It aims to compare and analyse the effectiveness of college students in cultivating interest in sports participation and improving physical fitness and the ability of special skills. The survey results show that the internal and external integrated teaching mode is more effective in the above aspects, which is the key to promote China's physical education curriculum in the new era.

Keywords: China's university; internal and external integrated; public physical education curriculum; practical exploration; teaching mode

Introduction

China's Ministry of Education launched the *National General Universities Physical Education Curriculum Teaching Guidance Outline* in 2021. It proposed that in order to achieve the goals of physical education curriculum, it is required that school's physical education teaching and students' extracurricular physical activities should be organically integrated into a targeted, planned and organised way. The extracurricular physical training program is integrated into the school's physical education teaching to build an organic physical education teaching structure (Zhang, 2013). The practice has also proved that the physical education curriculum once a week, focusing on disseminating basic sports knowledge and sports skills, can improve the physical fitness of college students, enhance special skills and arouse students' interest in sports learning. But this is not enough to carry out the initiative of "anyone who can insist one-hour sports a day, fitness and happiness will accompany for a lifetime" (Weng, 2014; Yu, 2019). To achieve the curriculum goals, the physical education curriculum in colleges needs to break through the confinement of original teaching methods, strive to expand its time, space, content and expression manner and give full play to the teacher's role, thus establishing an integrated curriculum system dominated by classrooms and supplemented by extracurricular teaching (Sun & Yang,

2017). This is not only a new development trend in reforming the physical education curriculum in China, but also a necessary choice for effectively realising physical education goals. This paper attempts to carry out internal and external integrated teaching modes among college or university students in a specific area. It also makes a comparative analysis of its effectiveness in improving college students' physical quality, cultivating special technical abilities and cultivating students' interest in sports participation and strive to make a scientific demonstration of the effectiveness of the teaching mode, which will provide a theoretical basis and practical evidence for the effective implementation of the teaching mode.

Methods

Research Object

The research takes Xinxiang Medical University's undergraduate male students in the table tennis option class as the main experimental objects. Based on students' self-declaration, we divided the students into the experimental and control groups, with a total of 60 students and 30 students in each group. The experimental group was guided by the internal and external integrated teaching mode, while the traditional teaching mode guided the control group.

Research Methods

Literature Method

According to the research purpose, the paper reviewed the relevant literature and materials on China's CNKI, Wanfang, Weipu and other websites. Related literature is sorted and summarised to fully understand the research status and trend.

Teaching Experiment Method

In order to verify the effectiveness of the internal and external integrated teaching mode in the public physical education courses in China's colleges or universities, the experimental group adopted the new teaching mode. In-class teaching activities are mainly carried out by teachers with reference to the teaching programme. Extracurricular sports activities adopt the form of "teacher+student assistants" (the student assistants mainly form school teams or communities) to carry out layered teaching, emphasising synchronous integration with in-class teaching activities.

Based on the hardware conditions and the practical needs of students, the extracurricular education centre provides a special teaching place for the students in the experimental group. During training, professional trainers provide skills guidance with the principle of quality, skill, individual guidance and overall improvement. According to the experimental method, the students in the experimental group must have at least three extracurricular physical practices in a week, and the duration of one activity should not be less than 60 minutes.

To ensure the students in the experimental group carry out extracurricular sports activities on time, they must be informed in advance that their extracurricular sports learning is the main part of the total score, which will be counted in the overall evaluation results at a rate of 20%. Teachers and student assistants complete the attendance and assessment of extracurricular sports. Students in the control group were not asked to do extracurricular sports activities except to complete the physical education class once a week, and extracurricular sports activities were not calculated in the overall evaluation score.

Before and after the experiment (16 weeks), the physical fitness level and special technical level of each student were measured. The specific measurement indicators of the basic physical fitness test are height, weight, vital capacity, 50m running, standing long jump, sitting in front of the body, bending, 1000m running and pull-ups (Chen, Wang & Xiang, 2019).

Questionnaire Survey Method

In order to fully grasp the far-reaching impact of internal and external integrated teaching modes on college students' athletic ability and hobbies, based on the research of traditional educational practice, the university compiled the College Sports Participation Interests and Hobbies Questionnaire to investigate the subjective experience of each student. The questionnaire is compiled based on the research on the interest in modern university sports activities and has good reliability and validity after testing. A total of 60 questionnaires were issued for the experimental and the control groups, and 60 valid questionnaires were recovered, with an effective rate of 100%.

Mathematical Statistics

The research used Excel XP and SPSS19.0 to perform and analyse the experimental statistics.

Table 1 Differential analysis of the impact of internal and external integrated teaching modes on students' physical quality

Items	Difference in experimental groups	Difference in control group	*t*	*P*
Height/cm	0.30±0.47	0.27±0.45	-0.28187	0.779
Weight/kg	1.23±1.19	0.67±1.18	-1.8454	0.070
50m run/s	-0.07±0.03	-0.05±0.02	3.5658	<0.001
Pull-ups/pcs	2.43±0.86	1.23±0.73	-5.84	<0.001
Standing long jump/cm	7.53±1.72	4.30±1.06	-8.7882	<0.001
Vital capacity/ml	322.20±53.79	165.80±46.17	-12.084	<0.001
Sitting forward/cm	0.63±0.17	0.43±0.18	-4.3459	<0.001
1000m run/s	-0.14±0.14	-0.07±0.10	2.1681	0.034

Table 2 Differential analysis of the impact of internal and external integrated teaching modes on students' special skills

Group	*M*	*SD*	*t*	*P*
Experimental group	61.67	3.97	-5.6764	<0.001
Control group	55.73	4.13		

Table 3 Statistics of sports participation interests of students in the control group (%)

Group	Very interested	Interested	Interested generally	Not interested
Before the experiment	17.56	28.67	41.97	11.80
After the experiment	20.35	31.24	40.13	8.28

Table 4 Statistics of sports participation interests of experimental group students (%)

Group	Very interested	Interested	Interested generally	Not interested
Before the experiment	17.43	26.96	44.38	11.23
After the experiment	27.62	36.87	33.46	2.05

Results and Analysis

1) *Differential analysis of the impact of internal and external integrated teaching mode on students' physical quality*

The statistical results are shown in Table 1. In the 50m running (P<0.05), 1000m running (P<0.05), standing long jump (P<0.05), vital capacity (P<0.05), sitting forward flexion (P<0.05) and in the pull-up (P<0.05) items, the difference in physical fitness between the experimental group (30 people) and the control group (30 people) was statistically significant. It shows that after 16 weeks of internal and external integrated teaching mode, the physical quality of the students in the experimental group has improved significantly compared with the students in the control group.

2) Differential analysis of the impact of internal and external integrated teaching modes on students' special skills

The statistical results are shown in Table 2. The difference between the experimental and control group students has statistical significance (P<0.05). Compared with the students in the control group, the skill level of the experimental group was significantly improved.

3) Analysis of students' interest in participating in sports before and after the experiment

Before and after the experiment the data analysis was carried out in the interest of the experimental and control group students. The results showed that the students in the control group who were interested (including very interested) in joining sports before and after the experiment accounted for the ratios of 46.23% and 51.59%, respectively (Table 3). Compared with the control group, the students in the experimental group (64.49%) who were interested in sports participation (including very interested) increased by 20.1% after the experiment (44.39%), and the increase was more prominent (Table 4). It shows that compared with the traditional teaching

mode, the internal and external integrated teaching mode can fully mobilize students' enthusiasm to learn sports activities and more effectively stimulate their interest in participating in sports.

Discussion

1. Analysis of the advantages of internal and external integrated teaching mode

Physical education teaching mode refers to the sports teaching system and structure that has certain educational ideas and completes certain special functions under certain educational conditions according to the educational requirements. The traditional physical education teaching model could not achieve the teaching goals, and the health of college students and the enthusiasm for sports have also been declining for a long time. The new teaching mode integrated internal and external class teaching has gradually been affirmed. Based on maintaining the traditional physical teaching, the new teaching mode integrates extracurricular sports into the college physical education curriculum system in a purposeful, demanding and planned way, which not only effectively expands the time limit of the physical education curriculum but also highlights the main role of the learner. The flexible and diverse participation methods and the strong activity atmosphere of the new teaching mode have greatly improved students' participation initiative. Students' physical quality and sports skills will also be well cultivated with teachers' help.

2. The impact of internal and external integrated teaching mode on students' physical quality

Interpretation of National Student Health Standards (Ministry of Education & General Administration of Sports of the People's Republic of China, 2007) is an evaluation index to measure the physical fitness of current college students and the effectiveness of actual physical exercise. It is mainly focused on the physical appearance (height, weight), human movement mechanism (lung capacity), physical strength (50m running, pull-up, sitting forward bend, 1000m running, standing long jump), etc., comprehensively measuring the physical fitness level of college students (Wu & Liu, 2017). The experimental results of this research show that the physical quality of experimental group students has been significantly improved after the experiment. Compared with the control group, the students in the experimental group, especially in terms of quality and physical function, all the indicators showed significant differences. This result shows that the internal and external integrated teaching mode has a prominent role in improving the physical quality of the students in the experimental group. The internal and external integrated teaching mode organically integrates the extracurricular sports projects and classroom teaching. A comprehensive, scientific and reasonable setting has been made from the teaching structure to the content, as well as all aspects of the teaching method. The training is scientific and reasonable, and it is guided and monitored by professional personnel, so the students' quality ability has significantly improved. The control group adopts the traditional teaching mode without supervision and guidance for the extracurricular sports activities, and the selection of students' load is also an unconscious arrangement. The amount and intensity of exercise cannot be guaranteed, so the students' improvement is not obvious enough.

3. The influence of internal and external integrated teaching modes on the students' special skills

Teaching and guiding students to master specific sporting skills is an essential purpose of physical education, and improving students' skills are also the most intuitive reflection. During the 16-week teaching and experimental activities, teachers conducted a double-blind assessment of each student's skills before and after the experiment. The results showed that all students' skills in the experimental group significantly improved after the experiment, and the difference is also very obvious compared with the control group. Compared with the conventional teaching mode, teachers can fully use the extracurricular skills knowledge to guide the students in mastering sports skills and related knowledge when adopting the internal and external integrated teaching mode to achieve mutual complementary. In addition, the internal and external integrated teaching mode allows students to exchange skills and knowledge. They can communicate with their peers in a timely manner during extracurricular sports activities to achieve the purpose of consolidation and improvement. However, due to the relatively simple extracurricular sports in the control group, lack of specialized skills training personnel and limited time for mutual assistance and communication with peers, the teaching effect of special skills was not ideal.

4. The influence of internal and external integrated teaching modes on students' interest in sports participation

Interests and hobbies are the emotional expressions of human beings when they recognise their own needs,

and they usually have positive emotions and conscious tendencies (Xu, 2017). Interest in sports participation is a psychological tendency of individuals when they understand and choose some sports activities, and it has a critical significance for the enthusiasm, initiative and formation of good sports habits. Compared with the control group, the students in the experimental group had a greater interest in sports participation after the 16-week experimental teaching activities, indicating that the internal and external integrated teaching modes can cultivate students' interest in sports participation. The effect is significantly better than the traditional teaching mode. However, the traditional physical education teaching mode emphasizes routine teaching, primarily cultivating students' professional knowledge, while ignoring the cultivation of students' hobbies and lifelong sports and healthy habits, and its teaching form is relatively monotonous (Liu, 2019). The internal and external integrated teaching modes use the spare time to organize students to carry out extracurricular physical education activities in a purposeful, planned and guided way, and it creates a relaxed, harmonious and joyful teaching atmosphere for students. It helps students to maintain strong energy and desire for new knowledge or skills, which greatly mobilize the interest of college students to participate in sports.

The organic integration of physical education and extracurricular physical activities is not only a new development trend of college physical education reform in the new era but also an inevitable choice for effectively realising college physical education goals. The internal and external integrated teaching modes have more practical effects and a good promotion effect on the physical quality level, special technical ability and sports participation interest of college students. Therefore, implementing integrated education inside and outside the classroom is one of the major measures to effectively carry out the goal of college physical education in the new era.

Competitive Interest Statement

I declare that there are no competing interests.

Acknowledgement

I would like to thank senior sister Liu Mingming and other friends and classmates who helped and encouraged me to complete this research within a limited time.

Funding

The authors received no financial support for the research, authorship and/or publication of this article.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article. This article is the sole work of the authors and has not been presented or published elsewhere.

References

Chen, C. Z., Wang, H. Y., & Xiang, X. L. (2019). Review, reflection and prospect of my country's youth physical health policy in the 40 years of reform and opening up. *Sports Science*, *39*(3), 38–47.

Ministry of Education & General Administration of Sports of the People's Republic of China.(2007). *Interpretation of the national student physical health standards*. Beijing: People's Education Press.

Liu, Y. C. (2019). Research on the construction of college physical education classroom teaching mode based on CDIO education concept. *Journal of Nanjing Institute of Physical Education*, *18*(3), 66–74.

Sun, C. L., & Yang, J. R. (2017). Exploration on the reform of the teaching mode of the theoretical courses of physical education majors in ordinary colleges and universities. *Journal of Shenyang Institute of Physical Education*, *36*(5), 88–96.

Weng, H. G. (2014). Change characteristics and comparative analysis of the physical quality evaluation standard of college students' "physical fitness standard". *Chinese School Physical Education (Higher Education)*, *1*(8), 49–52.

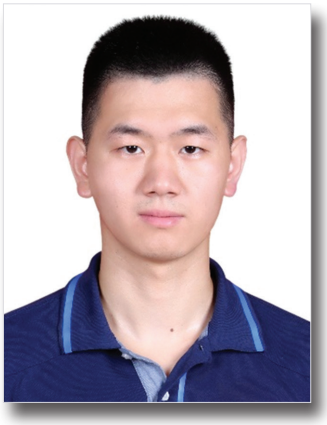
Wu, X., & Liu, S. L. (2017). The effect of brisk walking exercise on the physical health of middle-aged women with obesity. *Journal of Southwest Normal University (Natural Science Edition)*, *42*(2), 103–107.

Xu, D. Y. (2017). Academic emotion theory and its implications for migrant children's academic emotional counseling. *Educational Academic Monthly*, *2017*(6), 96–105. https://doi.org/10.16477/j.cnki.issn1674-2311.2017.06.013.

Yu, S. M. (2019). On the promotion of integrated curriculum construction to the development of school sports. *Journal of Physical Education*, *26*(1), 9–12.

Zhang, Q. (2013). A tentative exploration of the integration reform of college physical education courses inside and outside the classroom. *Sports Culture Guide,* 2013(1), 104–107.

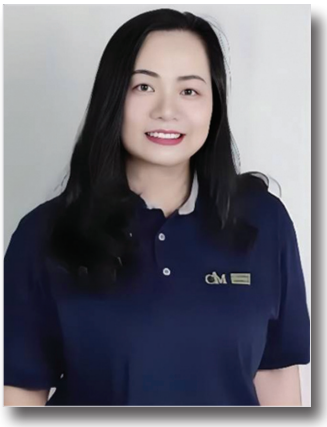
Biographical Statement of Author(s)



Zhibin Hu is a PhD student in Curriculum and Instruction Department at the Faculty of Education, Mahasarakham University. He holds a bachelor's degree in sports training from Henan University of China, and a master's degree in physical education from Belarusian State Sports University.

He is currently working at Xinxiang Medical University in China, mainly engaged in teaching table tennis and tennis. He is interested in the direction of physical education courses and teaching models.

Mr. Zhibin Hu
Curriculum and Instruction Department
Faculty of Education
Mahasarakham University
T. Talad A. Maung
Thailand
E-mail: huzhibin1990@126.com



Jiraporn Chano was born in Thailand. She received her B.E, M.E. and PH.D. degrees from Khon Kaen University, Thailand.

She has been working in the department of Curriculum and Instruction, Faculty of Education, Mahasarakham University, where she is currently an associate professor.

Her main areas of research interest are Educational Psychology, Curriculum and Instruction, Special Education. She also serves as a reviewer for International Journal of Trend in Research and Development, International Journal of Learning, Teaching and Education Research and EduBasic Journal, UPI Campus Serang, Indonesia.

Associate Professor Dr. Jiraporn Chano
Curriculum and Instruction Department
Faculty of Education
Mahasarakham University
T. Talad A. Maung
Thailand
E-mail: jiraporn.j@msu.ac.th