



Research Article

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## Physical education colleges technical branch specialized curriculum “integration of learning training and researching” practical teaching model construction research

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### ABSTRACT

*The research targeted at physical education teaching reformation development, especially for Chinese advanced education entering from “elite education” to internationally recognized “popularization education” stage, scale of all national sports specialized institutions are constantly expanding, number of recruitments are increasing, quality of students sources are reducing, teaching resources are tight as well as other factors bring into a series of problems to school and athletics course starting. Take physical education colleges technical branch specialized curriculum as entry point, strengthen teaching practice link reformation and innovation, explore and construct teaching model of integration of “learning, training and researching”, improve physical education colleges outstanding sports talents quality cultivation effective path under new situation.*

**Key words:** Practice teaching, sports colleges and universities, majoring in curriculum, teaching mode

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### INTRODUCTION

National medium and long term education reformation and development planning outline(year 2010-2020) points out that universities should strengthen connotation construction, enhance talents cultivation quality; set up education development view of improving quality at the core, focus on education connotation development, encourage school to have its characteristic and level, appear famous teachers and cultivate talents; insist on capacity as the most important, optimize knowledge structure, enrich social practice, intensify capacity cultivation”. In national education working conference, Premier Wen Jiabao pointed out that strong power must strengthen education, strong power must first teach; education is a kind of complex social systems engineering [1-5].Liu Yandong highlighted in comprehensive enhancing advanced education quality’s working conference that center on talents cultivation, driven by reformation innovation, comprehensive enhance advanced education quality, and should speed up education teaching reformation [6-9]. In the report of “Grasp key links and work on promoting talents cultivation quality” from Liaoning province education department pointed out that grasp innovative practice ability cultivation key links, work on cultivating excellent skilled high quality talents. Strengthen practice links construction from practical teaching system construction, practical teaching innovation, university students practice ability cultivation and other aspects [10-12].

Sports specialized institutions as representatives of cultivating “applied” sports outstanding talents advanced productivity, during talents cultivation process, it not only should focus on theory and practice combination, intensify practical teaching links, constantly improve “applied” talents cultivation specification and quality, but also should constantly explore new teaching status, build bridges between new theory and practice, and construct new teaching model in practical teaching. For such new teaching model, on one hand, it is from practice, it is the result of optimizing, summarizing and processing specific teaching activities ways and also a modeled teaching method system with certain theoretical basis that provides a kind of relative stable operational frame structure for teaching

and its involved all kinds of factors and their relations. On the other hand, teaching model is also simplified expression of one theory, is a kind of specialized and operationalized teaching thought or theory, it reflects one teaching theory or activity way's core part in simplified form so as to easy to let people to understand one teaching theory, which also provides relative completely operable implementation procedures for applying the teaching theory into practice.

By far, domestic and foreign teaching model relative researchers are relative plentiful, and research fields are relative wide. By consulting China national knowledge internet and Shandong University library as well as other relative websites, during year 1990 to 2012, there are totally 266 pieces of articles researching on teaching models in excellent masters' thesis, only around 20 pieces researching on sports teaching model, there are totally six pieces of articles researching on teaching models in excellent doctoral thesis, but there is no researches on technical branch specialized curriculum teaching model construction. Relative researches main contents are like Peng Chunmei the master graduate of Wuhan Institute of Physical Education compiled "Research on teaching model of "program-cooperation learning" applied into general institution of higher learning sports dance optional course teaching"; He Haiqiang the master graduate of Beijing Sports University compiled "Research on "Cooperative learning" teaching model applied in Gymnastics general course teaching"; Zhao Yanheng the master graduate of Beijing Sports University compiled "Development and Empirical Analysis of "Guiding and experiential" teaching model"; Yang Hongliang the master graduate of Wuhan Institute of Physical Education compiled "Research on 'Grasp-cooperative learning' teaching model application in volleyball general course technical teaching"; Wang Jiantao the master graduate of Beijing Sports University compiled "Beijing 211 project universities 'triple independent' sports teaching model implementation efficiency and influence factors" so on.

To sum up, teaching model research is a comprehensive subject in contemporary teaching theory; its core is optimization combination of system, structure and functions. Fore researching teaching process each kind of way and method, investigate its theoretical or practical basis, so that form a kind of teaching model system that unified systematization and diversification. By far, domestic practical teaching model innovation and application relative researches, mostly are how to carry on practical teaching model innovation and application in theoretical courses, practical teaching link teaching proportion is smaller, and researches restrict in theoretical level are more; physical education specialized fields' practical teaching model innovation and application correlated researches are mostly about ball kind events, and lack of scientific, effective and transferable research results. Especially in practical teaching model innovation and application research fields, it lacks of high quality research results. The research physical education college specialized curriculum "integration of learning, training and researching" practical teaching model construction, by far it hasn't yet found correlation researches in domestic relative websites that is of national initiative.

## **CONSTRUCTION OF PRACTICAL TEACHING MODEL IMPORTANT EFFECTS ON TECHNICAL BRANCH SPECIALIZED CURRICULUM REFORMATION**

### ***Technical branch specialized curriculum important position***

Specialized curriculum is a subject enhanced course of students compulsory according to students' special technology grasping and improving practical demands. Compare to other minor and optional curriculums, specialized curriculum has larger differences in curriculum's density, depth, intensity and other aspects. It belongs to contents of "national general institutions of higher learning physical education undergraduate specialized curriculum scheme" six main curriculums, overall cultivation targets are ①cultivate students' hard working, courageous, solidarity and cooperation as well as other excellent willpower and quality, form into good physical exercises habits, and cultivate lifelong sports awareness ;②enhance student all kinds of physical quality and functions levels, grasp professional basic theory, basic skill and basic technology, improve special sports technical level; ③possess capacity of engaging in professional teaching, training and scientific researching; And can apply professional knowledge to organize, arrange and guide each kind of social sports activities. Specialized curriculum has following features ① heavy curriculum task;② many curriculum contents;③ strong targeted;④ more class hours, big density.⑤ high requests on teachers' professional skill level.

### ***Technical branch specialized curriculum existing problems***

The writer during preliminary studying, he found that affected by popularization education phase students sources features and current social employment demand orientation and other factors, presently specialized curriculum has prominent problems as following ①talents cultivation quality declines. Special talents cultivation specification and criterion reduce, special features are not distinct enough, social conformity declines; ② Professional thinking is not fixed. Physical exercises habits are not stable, body function level and each physical quality are poor, lack of hard working, courageous, solidarity and cooperation as well as other excellent willpower and quality ③ Curriculum teaching thought is backward. Teaching model is single, teaching methods are old, test criterion is unbalanced,

curriculum functions are weaken ;④ Curriculum designing is unreasonable. Curriculum total class hours are greatly diminishing , teaching contents are diminishing , test and evaluation criterions are declining; ⑤teaching practical ability cultivation link target is vague. Lack of cultivation scheme, assigning target, evaluating target, evaluation criterion, enforcement regulation and steps so on; ⑥Lack of stronger social competitiveness. “One profession” level is not specialized, let alone “multiple abilities”, and basic guarantee of “follow-up learning” is weak.

#### ***Significance of practical teaching model construction***

Physical education curriculum is practical curriculum, is different from other theoretical curriculum teaching, sports knowledge, technique, technology are mostly completing learning in practical teaching. Sports itself is physical education; firstly it should build physique basis well or so-called “basic skill”. Just as arts, music and other specialized colleges, students should build their own major’s “basic skill”. As arts should build sketching “basic skill”, vocal music should build pronouncing “basic skill”, dance should build ballet “basic skill” and so on. Building sports “basic skill” is completed by practical teaching, sports “basic skill” level merits are directly related to special skills and technologies levels high or low. Physical education colleges’ specialized curriculum as a subject enhancing curriculum of students’ compulsory, practical teaching link occupies 80% of total class hours. The curriculum not only should complete building students’ physique “basic skill”, but also more important things to do is let students to grasp professional basic theory, basic skills and basic technologies, and improve special sports technical levels; possess capacity of engaging in professional teaching, training and scientific researching; And can apply professional knowledge to organize, arrange and guide each kind of social sports activities. With respect to this, construct specialized curriculum practical teaching model is very important, which is directly related to specialized curriculum talents cultivation specification and quality.

#### **“ INTEGRATION OF LEARNING, TRAINING AND RESEARCHING” PRACTICAL TEACHING MODEL CONSTRUCTION CONNOTATION**

The word“Moshi”is English word model’s Chinese translation noun. Model is also translated as“ mould”、“ normal form”、“ typical case” and so on. In general, it refers research objects theoretically logic frame, is a kind of operable knowledge system between experience and theory, is a kind of theoretical simplified structure that represents reality. According to “model” theoretically logic frame and physical education colleges specialized curriculum practical teaching basic features, combine with writer’s years teaching practice, it summarizes specialized curriculum practical teaching “integration of learning, training and researching” teaching model, its connotation refers to “learning” in specialized curriculum practical teaching is implemented by training; “training” is acting factor of “learning”; “researching” is effects testing on “learning and training”. That specialized curriculum each kind of knowledge, skill and technology “learning” are completed by “training”, “training”only reflects “learning” process; “learning” effects and levels are up to “training” acting factors strong or weak as well as scientificity, no “training” students functions and quality are poor, they cannot meet “learning” basic conditions, so it supposes that “training” is acting factor of “learning” effects and levels high or low; At the same time of “learning and training”, fuse into “researching” practical link contents, explore “learning and training” relations and quality as well as quantity changes and rules. Test “learning and training” effects achieved height, depth and breadth. Let “learning, training and researching” to be mutually fused and penetrated so that it forms into “integration of learning, training and researching” practical teaching community. Such as when learning sprint intermediate running skills, learning, training, and researching on sprint intermediate running skills, the three mutual fuse and penetrate. “learning” sprint intermediate running skills motion essence, and meanwhile improve sprint intermediate running performance by “ training”, at the same time of “learning and training” sprint intermediate running skills, organize “researching”, how to run so that motion is correct, elegant and fast. Implement “integration of learning, training and researching” practical teaching community.

#### **“ INTEGRATION OF LEARNING, TRAINING AND RESEARCHING” PRACTICAL TEACHING MODEL CONSTRUCTION VALUE**

Physical education model refers to established relative stable physical education teaching activity structure and activity programs under certain teaching though or teaching theory guidance. Physical education teaching model concept is composed of three basic elements that are teaching guiding thought, teaching process structure, relative teaching method system. “Integration of learning, training and researching” practical teaching model the three relations are that teaching process structure is “skeleton” to support teaching model; teaching method system is “muscle” to fill in teaching process; and teaching guiding thought is included in “skeleton” and “muscle”, and to be “nerve” that plays coordination and monitoring roles. Teaching guiding thought (nerve) reflects teaching model theory attribute; teaching process structure (skeleton) reflects teaching model stability; teaching method system (muscle) reflects physical education teaching model scientificity, intuitional and operable sports.

***“Integration of learning, training and researching” practical teaching model updates teaching guiding thought***

New practical teaching model is that teaching, training and researching the three are fused into community that “integration of learning, training and researching” practical teaching model. According to curriculum target, task, contents and orders differences, scientific and reasonable arrange teaching proportions, implement physical education colleges technical branch specialized curriculum’s learning, training and researching the three mutual fusion and penetration, form into “integration of learning, training and researching” practical teaching community. It changes original classroom teaching, sports training and sports scientific research the three self established its own system, independent running such traditional cultivation model. Original model is classroom teaching is grasping basic skills, sports training are improving special performance, sports scientific research is cultivation ability (lecturing, doing, teaching ability).

***“Integration of learning, training and researching” practical teaching model changes original teaching proportions***

Chinese advanced education entering from “elite education” to internationally recognized “popularization education” stage, scale of all national sports specialized institutions are constantly expanding , number of recruitments are increasing , quality of students sources are reducing , which brings into a series of problems to school and curriculum starting. The writer during investigation of Shenyang Sports Institute sports training major grade 2010 to 2012 students (every grade 200 people) before enrollment physical exercises time , it finds (refer to Table 1),before enrollment students engage in physical exercises arrive at two years and two years and a half only occupy around 30%, above two years and a half , three grades average values are less than 15%; and students only engage in physical exercises for half a year and one year are as high as above 45%.

Analyze Table 1 data reflected status, most students engage in physical exercises time are shorter, base is relative weak, physical quality is relative poor, in implementing “integration of learning, training and researching” practical teaching model, properly increase “training” teaching proportion, enhance students each kind of physical quality, strengthen students’ physical quality and ensure “learning” process and effects.

**Table 1: Sports training major grade 2010 -2012 students before enrollment physical exercises engagement time investigation statistical table**

Training engagement time	Grade 2010		Grade 2011		Grade 2012	
	Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)
Half a year	34	17	32	16	31	15.5
One year	57	28.5	63	31.5	59	29.5
One year and a half	47	23.5	42	21	44	22
Two years	33	16.5	37	18.5	34	17
Above two years and a half	29	14.5	26	13	32	16

***“Integration of learning, training and researching” practical teaching model effective arouse students’learning enthusiasm***

A traditional sport technical curriculum teaching model, teachers’ explanation together with demonstration teaching method is not only dull, but also is bad for arousing and driving students’ learning positivity and interests. As well as original teaching model classroom teaching, sports training and sports scientific research the three self established its own system, independent running ,which causes many poor physical quality students cannot meet the demands of basic skills and technologies learning, so when students come across difficulties, they are prone to generate weariness in learning or back out. And implement “integration of learning, training and researching” practical teaching model, let students to have refreshed and new feelings. Change dull learning contents into learning, training and researching that “integration of learning ,training and researching” community, implement multiple kinds of teaching methods optimized combination, let sports technical teaching form lecturing process to get comprehensive , stereoscopic and all-around presentation. It greatly improves sports technical teaching intuition, interaction and interests, drives students’ learning enthusiasm, and can get relative ideal teaching effects.

The writer applies new and old teaching models on Shenyang sports institute sports training major athletics specialized class four grades students ,their satisfaction result (refer to Table 2) shows. New teaching model two grades students very satisfied degree are as high as nearly 70%,while old teaching model two grades students very satisfied degree are less than 40%.

**Table 2: Investigation statistical table of students satisfaction on specialized curriculum new and old teaching models ( n=63 people)**

Evaluation		Very satisfied		Satisfied		Relative satisfied		Dissatisfied	
		Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)
New model	Grade 2009	12	75	4	25	0	0	0	0
	Grade 2010	9	69.2	4	31.8	0	0	0	0
Old model	Grade 2006	6	37.5	6	37.5	4	25	0	0
	Grade 2008	5	27.8	7	38.9	6	33.3	0	0

**“Integration of learning, training and researching” practical teaching model effective propels to students knowledge ,skill and technology grasping and improvement**

By Shenyang sports institute sports training major grade 2006、2008、2009and2010 (sprint, hurdle group) sixty-three students six items basic skills technical evaluation, test new and old teaching models teaching effects in techniques learning, let teaching and researching section three professional teachers ( not teach these students) to make technical evaluation on students’ skills, students’ technical evaluation results statistical result can refer to Table 3.

From Table 3,it is clear that new teaching model basic skills technical evaluation performance is generally higher than that of old teaching model, in six items evaluation, average score is higher than 3 scores, highest average score is 5.2 scores higher. Use SPSS13.0 software to make independent sample T test, after that it can get new and old teaching models students technique evaluation performance test results  $P < 0.01$ ,which shows very significant differences. Above result shows that “integration of learning, training and researching” practice teaching model teaching effects are obvious superior to that of traditional teaching model.

**Table3 : New and old teaching models technical evaluation performance comparison statistics n=63**

Technical evaluation items	New teaching model( score)	Old teaching model(score)	Difference of average score
Hurdle	88.3	84.7	3.5
Stride-in-the-air type	84.4	79.2	5.2
Straddle jump	88.7	84.4	4.3
Fosbury flop	86.7	82.6	4.1
Javelin	85.6	82.3	3.3
Discus	82.4	79.4	3.0

*Note: Athletics specialized curriculum learning six items’ main basic skills technical evaluation performance.*

**Table 4: Investigation statistics of students evaluation on “integration of learning, training and researching” practical teaching model n=29**

Evaluation criterion	Yes		General		No	
	Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)	Number of people(piece)	Percentage(%)
Whether accept new teaching model	26	89.7	3	10.3	0	0
Whether is beneficial to grasp basic skills	24	82.8	5	17.2	0	0
Whether is beneficial to enhance physical quality	28	96.6	1	3.4	0	0
Whether is beneficial to improve special level	22	75.9	5	17.2	2	6.9
Whether it can arouse learning enthusiasm and atmosphere	23	79.3	6	20.7	0	0
Whether it can improve observation and analysis ability	23	79.3	4	13.8	2	6.9
Whether it can improve problem handling ability	22	75.3	6	20.7	1	3.4
Whether it can improve practical operation ability	25	86.2	4	13.8	0	0
Whether it can cultivate excellent morality	26	89.7	3	10.3	0	0
Whether it should be widely spread	27	93.1	2	6.9	0	0

**Students evaluation on“ Integration of learning, training and researching” practical teaching model**

In order to comprehensive understand and grasp students evaluation on “integration of learning, training and researching” practice teaching model, adopt questionnaire survey on Shenyang sports institute sports training major grade 2009 and grade 2010 ( sprint, hurdle group) students, make evaluation on “integration of learning, training

and researching” practical teaching model application, Table 4 result indicates that students give full affirmation and higher evaluation on “integration of learning, training and researching” practical teaching model application in athletics specialized technical teaching. Among them, six items indicators are recognized by above 80% students; and two items indicators are recognized by 90% students. Thereupon, “integration of learning, training and researching” practical teaching model application is well received and affirmed by students.

### CONCLUSION

“Integration of learning, training and researching” practical teaching model construction intensifies teaching practice link reformation and innovation, improves physical education colleges outstanding sports talents quality cultivation effective path under new situation.

“Integration of learning, training and researching” practical teaching model teaching guiding thought is fusing teaching, training and researching the three into community that “integration of learning, training and researching” practice teaching model. It changes original classroom teaching ,sports training and sports scientific researching the three established self systems, independent running such traditional cultivation model;

“Integration of learning, training and researching” practical teaching model changes original teaching proportions, properly increases “training” teaching proportion, enhances students each kind of physical quality, strengthens students’ physical quality and ensures “learning” process and effects.

“Integration of learning, training and researching” practical teaching model effective arouses students’ learning enthusiasm, it changes dull learning contents into learning, training and researching that “integration of learning ,training and researching” community, implements multiple kinds of teaching methods optimized combination, lets sports technical teaching form lecturing process to get comprehensive , stereoscopic and all-around presentation. It greatly improves sports technical teaching intuition, interaction and interests, drives students’ learning enthusiasm, and can get relative ideal teaching effects.

“Integration of learning, training and researching” practical teaching model effective propels to students’ knowledge, skills and technologies grasping and improvement, new teaching model basic skills technical evaluation performance is generally higher than that of old teaching model, in six items evaluation, average score is higher than 3 scores, highest average score is 5.2 scores higher.

Students give full affirmation and higher evaluation on “integration of learning, training and researching” practical teaching model application in athletics specialized technical teaching. Among them, six items indicators are recognized by above 80% students; and two items indicators are recognized by 90% students.

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### REFERENCES

- [1] Wang Xiaoguang. *Research On Development*, 2007, (5), 57-60.
- [2] CHEN Nan - yue. *Journal of Yunnan Finance and Trade Institute*, 2005, 21(6), 81-85.
- [3] LIU Chang-ming, GUAN Bin. *Journal of Tianjin University(Social Sciences)*, 2009, 11(5), 453-457.
- [4] Fan Liwei, Liang Jiyao. *Value Engineering*, 2006, 25(5), 29-31.
- [5] SUN Yi-kai. *Journal of Anhui University(Philosophy & Social Sciences)*, 2006, 30(6).
- [6] LU Jian-hua. *Journal of Anhui University(Philosophy & Social Sciences)*, 2006, 30(6), 5-6.
- [7] XU Xiao-yue. *Journal of Anhui University(Philosophy & Social Sciences)*, 2006, 30(6), 6-8.
- [8] SU Bao-mei, LIU Zong-xian, LIU Chang-ming. *Journal of Jinan University*, 2002, 12(5), 1-10.
- [9] Zhang B.; Zhang S.; Lu G. *Journal of Chemical and Pharmaceutical Research*, 2013, 5(9), 256-262.
- [10] Zhang B.; *International Journal of Applied Mathematics and Statistics*, 2013, 44(14), 422-430.
- [11] Zhang B.; Yue H.. *International Journal of Applied Mathematics and Statistics*, 2013, 40(10), 469-476.
- [12] Zhang B.; Feng Y.. *International Journal of Applied Mathematics and Statistics*, 2013, 40(10), 136-143.