Exploration of Present Status and Measures of Human Movement Science Experiment Teaching

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Abstract. The article with human movement science experiment teaching ass the focused research object, makes detailed elaboration and studies on present status of human movement science experiment teaching in sports major of regular institutions of higher learning, and proposes relevant measures for perfection with the aim of realizing the promotion of teaching quality and providing high-quality sports professionals for the society.

Importance of human movement science experiment teaching research

As one subject among sports disciplines, human movement science mainly studies the interrelation and rules between sports activities and organism belonging to disciplinary cluster. In human movement science, key curriculum contents include exercise anatomy, physiology and nutriology, in addition with Sport Hygiene and measurement & evaluation. Meanwhile, human movement science is newly interdisciplinary subject equipped with many features of bioscience and sports science in itself, involving many knowledge points with relatively rapid updating speed, and requiring students to possess certain operational ability [1]. However, due to huge prejudice in physical education, and the blind pursuit of practical experience in professional teaching of physical education colleges, the importance of theory has been neglected so that the theoretical teaching of human movement science especially experiment teaching has been in an awkward state.

Under the new era background, institutions of higher learning must pay attention to the important roles of human movement science experiment teaching during the process of cultivating sports talents with multi-course experimental project as basis to fully consolidate theoretical knowledge and further study hot theories, effectively cultivate students' ability to analyze and solve problems, and help them form innovative thinking and team spirit. Thus, intensifying the reform on human movement science experimental teaching has become an urgent problem to be solved. Meanwhile, it has significant importance to promote human movement science experiment teaching quality, and it is critical for sports talents cultivation.

Explanation of human movement science experiment teaching status

Seriously neglect the importance of experiment teaching

Among regular higher educational institutions, especially in fund investment of experimental facilities, science and engineering or majors that acquire profits more easily are more inclined to get the chances. But in constructing human movement science labs, there are few practical support. The main reason is the influence of traditional educational concept which thinks sports major to emphasize the cultivation of sports skills. But theoretical teaching can be used for assisted instruction so that the function of experiment teaching is neglected inevitably. Management have not invested sufficiently in human movement science lab construction. Besides, relevant leadership and teachers

in sports major division do not attach importance to experiment teaching correspondingly but regard lab as the dependency of theoretical course teaching. So course period and amount is not sufficient, and arrangement in experiment teaching is not reasonable, lac of the standard requirement for systematic experiment teaching system and evaluation. For students, they also focus on the improvement of sports skills but neglecting the function of theoretical knowledge with an entertaining attitude toward experiment classes. In this situation, the role of human movement science experiment in college and university experiment teaching, even in university and college education is negligible. This has produced negative impact on subject teaching quality improvement and talent cultivation.

Irrationality of the examination & evaluation mechanism in experiment teaching

At present, the majority of universities and colleges have formulated the examination and evaluation system of experiment teaching and detailed measurement standard. But to due to the particularity of human movement science experiment, the pertinence and accuracy of examination and evaluation system are not obvious. Even some college physical education experiment courses lack teaching program and plan and experiment contents set are random. Meanwhile, examination and evaluation of experiment teaching in sports major are usually conducted through combining the performance of experiment report and checking-in as the final achievement of experiment examination and evaluation. But most of current experiments belong to replication experiment so that it is difficult in the process of confirming the score standard [2]. Students usually totally replicate what they have learned during the experiment process and ignored the cultivation of experiment operation skills. In this way, the results of examination and evaluation cannot truly reflect the effect of experiment teaching. Meanwhile, experiment teaching courses always belong to a certain theoretical course, so it takes up low proportion in theoretical performance. Not only students but also many teachers neglect the cultivation of students' operational and innovative ability for the sake of completing the task of experiment reports.

Experiment teaching contents are backward and major characteristics are not distinctive

At this stage, human movement science experiment teaching in colleges and universities always applies mechanically basic medical experiment model. Most teachers have medical background, so they focus on theories but neglect practice during teaching process. Besides, the introduction of body structure and skills take up dominant position, sports practice is not much, so students' interest in learning is not high. Ad experiments carried out in human movement science experiment teaching are verification tests so that students just observe pictures, specimens, and models, and passively receive theoretical knowledge infused by teachers so that their learning activity has been severely restricted. Compared with experiments in other subjects, experiments in sports major with strong comprehensiveness and applicability are very few with low level of project settings and high repetitive rate. Experiment of circulation and ambulatory blood pressure measurement appears extremely frequent in exercise physiology, anatomy and sports measurement evaluation experiment teaching so that experiment resources have been greatly wasted and teachers and students get bored easily of human movement science experiments. In this case, experiment event contents are backward, and almost same with contents ten years ago. In addition, replication experiment projects take up huge proportion so that it is hard to present comprehensive and application-oriented features of modern sports science. At last, experiment teaching mode and means make students conduct experiment onl through following specific experiment instructions instead of making in-depth researches. However, many electrified teaching facilities inside the lab are not sufficient so that it requires to introduce depending on pictures or specimens. This has limited the instruction of teaching contents to a certain degree [3]. Above-mentioned phenomena have produced bad impact on the efficiency of experiment teaching, and students' ability to analyze and solve problems have not been improved with ideal effects.

Insufficient experimental facilities and uncomprehensive configuration

Compared with science and engineering or life science laboratory, human movement science lab is obviously lagged behind with insufficient quantity and crude quality in experimental facilities. Therefore, it is extremely difficult to normally carry out experiments. In addition, under the influence and impact of existing administration system, most experimental devices and equipment in human movement science labs are similar with labs of medical school or school of biology so that the problem of repeated purchasing of device is serious. Under the circumstance of interdisciplinary integration, teaching model is difficult to adapt to the specific requirement of current talent cultivation. Thus, uniformity and reasonable arrangement of lab management and teaching management must be guaranteed. However, experimental apparatus and devices will be kept in experiment classrooms unavailable for students in spare time. In this way, these devices will be limited and due to different course arrangement in each semester, lab service cycle lasts for several months so that the utilization efficiency of experimental device is not high and experiment resources are greatly wasted.

Specific measures to consummate human movement science experiment teaching

Actively transfer teaching mentality

As experiment teaching in sports discipline has not attracted people's attention, it requires to actively transferring traditional concepts and improve the position of experiment teaching effectively during the process of carrying out the reform. What need to be faced is that technical training and experiment teaching are independent systems mutually influencing and promoting each other in sports subject teaching. Since practice as the important source of theory also brings certain side effect, the position of experiment teaching must be improved together focusing on training of experiment teaching, theoretical instruction and exercise skills, and organically combining with the rules and features of human movement science experiment teaching to promote scientific and systematic reform of experiment teaching.

Scientific reform on experiment teaching course system

Currently, the way only depending on traditional theoretical teaching course cannot satisfy the requirement of cultivating professional sports talents. Therefore, take comprehensive consideration of the connection between human movement science major courses and achieve effective selection and combination of experiment teaching contents to construct brand new human movement science teaching system.

Firstly, reasonably increase the experiment class hours. In current stage, some universities and colleges in China have improved the proportion of experiment period to about 23-35% ^[4]. According to the analysis on specific conditions of laboratory, it is necessary to increase experiment period and guarantee the proportion exceed 15% so as to improve the real effect of human movement science experiment teaching.

Secondly, insist the principle of theory applicability during practical teaching process, and make in-depth analysis on the theoretical attainment and spots skill level of students in different sports majors. On this foundation, carry out experiment teaching according to specific teaching procedures to effectively reduce the proportion of replication experiment and better strengthen students' acquirement of their own experiment methods and skills to stimulate their learning enthusiasm. During the whole process, dynamic integration between theory and practice must be guaranteed to realize the teaching objective of practical application. Besides, carry out teaching through scientific

research. Professional teachers should emphatically introduce achievements of scientific research to students, comprehensively update teaching contents and broaden students' knowledge scope.

Intensive reform on teaching methods

The main purpose of carrying out experiment teaching is to cultivate students' learning enthusiasm under the influence of experiment teaching and to improve their operational ability so that they can study actively, develop self-directed learning attainment, and perfect their own quality comprehensively.

Firstly, highlight students' integral position in experiment teaching. As experiment teaching method is different with theoretical instruction, "Duck-stuffing" type of teaching cannot satisfy the existing state of experiment teaching. Be sure to provide students with more chances so as to get them into experiment teaching to improve their subject consciousness, study more actively and realize ideal teaching effect.

Secondly, flexibly apply experiment teaching method. Human movement science involves with many courses so that teachers should apply corresponding teaching methods based on different types and take comprehensive consideration about the teaching objective, students' features and teaching materials. Cultivate students' operational ability and ability to analyze and solve problems through various teaching methods.

Thirdly, carry out after-school summary and evaluation activities. In all experiments, teachers should provide instructions for students to make sure they can accurately observe and make detailed records about experimental phenomenon. After finishing experiments, make summary and analysis. Typical issues or special phenomenon in experiments should be discussed among students to encourage them deliver their own opinions and suggestions. At last, teachers summarize, conclude, and comprehensive reveal the theoretical foundation to effectively strengthen the teaching effect.

Fourthly, reasonably use modern teaching methods. Currently, most laboratory appliance and devices are relatively advanced. But classrooms equipped with multimedia and electrified education means are few. Funds have been severely limited, so if hard to purchase experimental apparatus, multiple teaching methods such as multimedia, or computer simulation can be fully used to provide more direct and vivid visual and auditory images to make sure students have deeper understanding and acquirement of the experiment theory and essence.

Actively construct multi-dimension examination and evaluation system

Firstly, in experiment teaching examination and evaluation system, the contents should include students score evaluation and teachers' teaching examination and evaluation.

Secondly, students' experiment performance should include experiment report scores and should also truly reflect their experiment operational ability and ability to analyze and solve problems. According to practical operation, students' experiment scores can be divided into several parts: checking-in, Q & A and notes, and experiment reports ^[5]. In this way, repeated verification of experiment teaching can be effectively avoided and students' learning interest can be stimulated with teaching effect strengthened at the same time.

Thirdly, intensify the force of teachers' examination and evaluation. Construction of examination and evaluation system can effectively verify students' learning effect, and also can be used as for examination and evaluation on teachers' teaching condition with detailed records. Before carrying out experiments, check the teaching program plan and conduct non-scheduled observation and emulation during the teaching process, and check students' experiment reports providing assessment on students. The examination and evaluation system has importantly guiding function for inspecting teachers' teaching condition. And standardized examination and evaluation on guiding teachers' teaching activities can further strengthen teachers' own operational ability and mobilize human movement science experiment teaching. So it has obviously practical significance.

Conclusion

To sum up, we can find out many inadequacies after making investigation and studies on human movement science teaching condition in ordinary universities and colleges at the present stage. Under the new era background, to accord with talent demands from the society, it requires to combine with existing educational reform situation together with relevant measures to explore teaching models suitable for the practical situation of sports science for the purpose of further promoting sustainable development of human movement science. The article targets on the importance of human movement science teaching research in universities and colleges to analyze and elaborate the practical teaching condition, and actively propose corresponding measurements aiming at mobilizing the implementation of teaching in this subject.

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