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## Innovation and Application of Three-dimensional Practice Teaching of Social Sports Specialty

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**Abstract:** The concept and characteristics of three-dimensional practice teaching are defined and analyzed by using the method of literature, interview, questionnaire, logic analysis and so on and parallel experiment of teaching practice of the social sports specialty is conducted through the use of the method of experiments. The results show that three-dimensional practice teaching is obviously superior to the traditional practice teaching in the improvement of students' ability of research, practical ability, innovative thinking and the inspiration of students' learning attitude, interest, motivation and nailing down learning objectives and occupation direction etc. It is suggested that it should be popularized and used in the practice teaching of social sports specialty of college of physical education.

**Key words:** Social sports specialty, method of three-dimensional practice teaching, innovation and application

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### INTRODUCTION

Practice teaching is one of teaching forms which takes the improvement of students' social adaptability and ability as the goal under the organization and guidance of teachers and makes students consolidate the theoretical knowledge and professional skills, improve student's practical ability and comprehensive ability and enhance students' innovation thinking and consciousness of team through such teaching links as observation, experiment, operation, training and practice and so on (Wu, 2007). The three-dimensional practice teaching of social sports specialty refers to the organization of the students into the fields related to social sports and combining classroom teaching content (Luo, 2009). The related fields are as follows: the investigation of all levels of management agencies of sports organizations, social groups, enterprises and institutions, sports venues, sports clubs and well-being clubs of hotels. What's more, research reports is written, individual professional learning plan is developed and group communication and lecture during playtime are conducted by understanding and analysis of the current situation. Finally, the occupation career planning for individual is developed in order to making full preparations for eventually entering the workplace. It is a new mode of practice education of three-segmentation education + improvement in three kinds of basic ability+ giving prominence to three

professional characteristics. As to this study, two years of teaching practice had been conducted in social sports specialty.

### OBJECT AND METHOD

**The subject:** Taking 54 students (43 boys, 11 girls) from social sports specialty, grade 2009, Hunan University of Science and Technology

#### Research methods

**Literature:** Related information, such as dissertations, periodicals and technical report and so on, is consulted from the Chinese HowNet, the current development situation of practice teaching of social sports specialty and other profession in China's colleges and universities is basically grasped so as to lay the foundation for considering the framework, developing the implementation plan, the implementation of teaching experiment and so on.

**Interview:** On the one hand, interview students of social sports specialty, grade 09, Hunan University of Science and Technology, current situation of the practice teaching of social sports specialty and students' needs and expectations are grasped. On the other hand, interview teachers of social sports specialty from school of physical education, Hunan University of Science and Technology,

students' learning behavior and change in ability and themselves and feelings after system of three-dimensional practice are grasped.

**Logical analysis:** Logical analysis refers to the elaboration of a special problem of the study based on collecting and collating documents and relevant materials and conduct comprehensive study by taking a certain research subject as a system, following the requirements for the system research, based on the grasp of integrity, trend, relativity and order of system (Gu *et al.*, 2011) For example, this method will be used in induction and argumentation of the concept and connotation of three-dimensional practical teaching.

**Questionnaire and survey:** The questionnaire is designed according to the research purpose of this paper and the same questionnaire is issued to 54 students participating in the teaching experiment in order to grasp the learning behavior and ability of 54 students.

**The implementation of questionnaire:** The questionnaire is issued two times. 1. The questionnaire is issued before the experiment. Through recycling, sorting and analyzing, the issued questionnaire is 54 and the recovered questionnaire is 50 and the recovery rate is 92.5% and the valid questionnaire is 48 and the valid rate is 89%. The same questionnaire is issued at the end of the trial for two years. 26 questionnaires are recovered from experimental group which 27 questionnaires are issued to and the recovery rate is 96% and the valid questionnaire is 22 and the valid rate is 81%. The recovered questionnaire from the control group is 24, the recovery rate is 88% and the valid questionnaire is 19, the valid rate is 86%.

**The test of validity and reliability of the questionnaire:** In order to test the validity of the questionnaire, the instructors are invited to add and adjust the questionnaire after it was initially designed and part of the content of questionnaire is amended so as to make the questionnaire more perfect. In order to ensure the stability of the results, the retest method is used for reliability test so that there is no significant difference between the first observation value and the second observation value.

**The experimental method:** The feasibility and innovation of teaching mode of three-dimensional practice teaching are proved by using the method of experimental group (regardless of gender). 27 students (male 23, female 4) are randomly selected from 54 students as the experimental group. Another 27 students (male 20, female 7) are

selected as the control group. The control group learns according to the original mode of practice teaching and the experimental group participates in three-dimensional practice teaching (Ke, 2011)

**The design of concrete implementation scheme of three-dimensional practice teaching:** The first stage: the reconstruction of curriculum system, the determination of the teaching points, writing the outline of practice investigation. The second stage: the determination of teaching class, the division of teaching group, the choice of research unit, writing research outline, conducting social survey by stages. The third stage: writing research reports, making courseware, communication and discussion, making a detailed job plan, developing professional learning plan for individual. The fourth stage: Revising occupation career planning, determining occupation direction, strengthening skills of job seeking and interview.

Note: for the implementation of three-dimensional practice teaching, it is necessary to adjust the teaching materials to make it more suitable for the requirements for three-dimensional practice teaching.

The specific teaching process of three-dimensional practice teaching: Three-dimensional practice teaching is conducted according to three-segmentation education so as to train students (from grade two to three in college) of the social sports specialty for two years. The platform combining the school with enterprises is used in the process of teaching and enterprises participate in the formulation of the teaching plan for schools and appoint professionals to participate in teaching activities in schools. At the same time, teachers train the staff of enterprises so as to improve the quality of staff. The teaching process as shown in Fig. 1.

**Stage of investigation of the situation:** (the first stage of the first year in grade two of college) on the base of the general education in grade one of college, the students are organized to enter the employing units related to the social sports specialty for the preliminary understanding, for nailing down their own learning goals and employment direction so that the teachers and schools understand the current information of the employing units. Student teachers are required to write reports on investigation according to the needs of employers and students determine the initial personal learning objectives and learning plan. The content of teaching materials are adjusted and determined after being discussed for many times by teachers, students, school and the employing units.

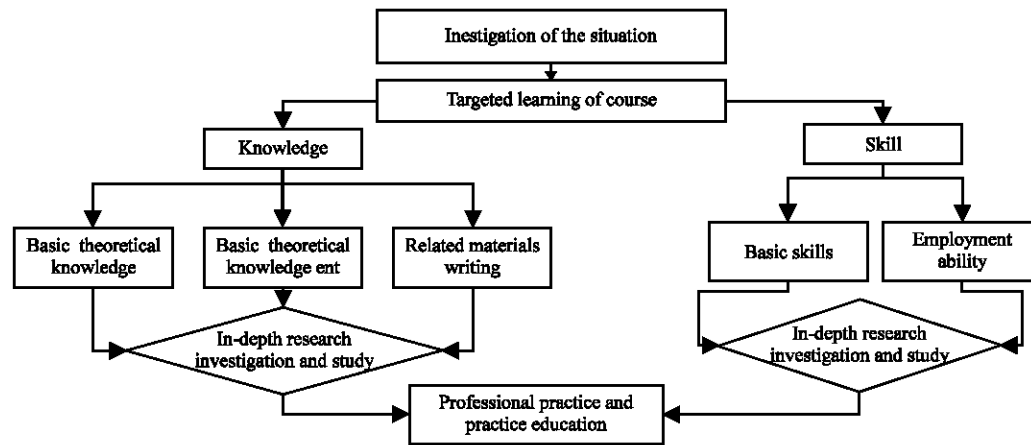


Fig. 1: Teaching process of three-dimensional practice teaching

**The education stage of targeted basic knowledge and skills (the first year of grade two):** Addition to learning the basic theoretical knowledge, it is necessary to learn the relevant employment knowledge and materials writing. (1) Basic courses, (2) Relevant employment knowledge, (3) Materials writing, (4) Professional skills and sports skills learning and (5) Moral education training.

**The stage of in-depth social investigation and study (the first semester of grade three):** It is necessary to write in-depth report on investigation aiming at the needs of employing units and further nail down the feasible target of the future development combined with the actual situation and to formulate the detailed job plan and personal professional learning plan (He and Zhang, 2012). It is necessary to make full preparations before social investigation is conducted. The teaching group is responsible for the division of teaching and investigation team and teachers help students choose investigation units and guide the students to write the investigation outline and organizes the student to carry out the investigation. After the investigation was completed, the students are required to write reports on investigation, to discuss and analyze and communicate and relearn according to their own insufficient ability found in the process of investigation. In the process of relearning, it is necessary to participate in the communication report meeting for high grade students' practice in enterprises, sharing meeting for schoolfellow and professional lectures, arranged by the school. The small-scale planning activities should be organized by stages. The students as planners and performers, simulate the corporate jobs, or students play the role and carry out experience teaching in accordance with the route of 'virtual-simulation- reality' (Sun *et al.*, 2011).

**Stage of professional practice and practice education (the second semester in grade three):** Students should revise their occupation career planning and determine the direction of occupation and conduct skills training of job seeking and interview according to the needs of the employing units and the situation of practice. After two phases of the accumulation of knowledge and social survey, it is necessary to arrange students to enter the enterprise to practice. The practice will be carried out in the form of combining guidance by the professional teachers with guidance by the principal of business projects. The principal of business projects is responsible for on-site guidance and the professional teachers of guidance are responsible for answering the questions in the process of practice and guiding the students actively carry out practice and implementing the quality monitoring so as to improve the effect of practice. The students should sum up their practice, revise their own occupation career planning and determines occupation direction after the end of practice. The school set the scene to carry out the simulation for job interviews and invite the personnel responsible for the recruitment of staff of companies to assume the interviewer and conduct comments on every 'seekers' and on-site guidance so as to complete the preparations for seeking the job (Zhang and Ling, 2009).

**Method of mathematical statistics:** SPSS statistical software is used to analyze data from the questionnaire and conduct further research and analysis of the results.

## RESULTS AND ANALYSIS

**The definition of the concept of three-dimensional practice teaching:** the 'three-dimensional practice

teaching’ refers to taking the demands for occupation as the main lines, organize the students to the fields related to social sports, on the basis of teachers’ teaching professional knowledge, combined with the content of classroom teaching, such as: the investigation of all levels of management agencies of sports organizations, social groups, enterprises and institutions, sports venues, sports clubs and well-being clubs of hotels (Wang, 2012). What’s more, research reports is written, individual professional learning plan is developed and group communication and lecture during playtime are conducted by understanding and analysis of the current situation. Finally, the occupation career planning for individual is developed in order to making full preparations for eventually entering the workplace.

**Comparison of the learning objectives and occupation direction before and after the experiment of two groups:**

The results from the questionnaire survey are as follows: before the experiment, the scores of learning goal of the control group are 0.463 and the scores of learning goal of the experimental group are 0.574 and the scores of the control group are higher than the experimental group and the scores of occupation direction are basically the same and there are no significant difference in learning goal and occupation direction ( $p>0.05$ ). After ‘three-dimensional practice teaching’, the scores of learning goal of the experimental group are 0.796 and the scores of occupation direction are 0.833. The scores of learning goal and occupation direction of the control group are also slightly increased, respectively 0.611 and 0.593 but the scores of the experimental group are higher than those in the control group. As a result, there are significant differences between the two groups ( $p<0.01$ ), As shown in Table 1.

It can be seen from Table 1 that The students learning by three-dimensional practice teaching think that the teaching methods are new and innovative and the teaching effect is very good, it is of significance to engage in occupation related to social sports.

**Comparison of the ability of investigation between two groups before and after the experiment:**

It can be seen from the questionnaire survey that there is not significant difference ( $p>0.05$ ) in ability of writing, language expression and communication between two groups before the experiment. The scores of language expression ability of the control group is (0.333), slightly better than the experimental group (0.111) and the scores of writing ability of the experimental group is 0.259, slightly better than the control group (0.185). As a result, language communication capability is basically the same between two groups. However, after three-dimensional practice teaching, student’ scores of ability of investigation, research and analysis, practical operation and job interview of the experimental group are higher than that of the control group and there are significant differences ( $p<0.01$ ) between the two groups, as shown Table 2.

**Comparison of the ability of research and analysis between the two groups before and after the experiment:**

It can be seen from the questionnaire survey that there is not significant difference ( $p>0.05$ ) in ability of analysis, research and thinking and innovation between two groups before the experiment. The scores of research ability of the control group is 0.259, slightly better than the experimental group (0.185) and the scores of thinking and innovation ability of the control group the differences between them are 0.019 and analysis ability is basically the same. After three-dimensional practice teaching, student’ scores of ability of research and analysis, thinking and innovation of the experimental group are obviously higher than that of the control group, especially the research ability, increased by 0.537 points. There are significant differences ( $p<0.01$ ) between the two groups, as shown Table 3.

**Comparison of practical ability between the two groups before and after the experiment:**

It can be seen from the questionnaire survey that there is not significant

Table 1: Comparison of the learning objectives and occupation direction before and after the experiment of two groups

Group n/	Before the experiment		After the experiment	
	Learning objectives	Occupation direction	Learning objectives	Occupation direction
Experimental group 27	0.574	0.430	0.796	0.833
Control group 27	0.463	0.430	0.611	0.593

$p>0.05, p<0.01$

Table 2: Comparison of the ability of investigation between two groups before and after the experiment

Group n/person	Before the experiment			After the experiment		
	Writing ability	Language expression	Communication	Writing ability	Language expression	Communication
Experimental group 27	0.259	0.111	0.407	0.556	0.481	0.852
Control group 27	0.185	0.333	0.407	0.259	0.333	0.556

$p>0.05, p<0.01$

Table 3: Comparison of the ability of research and analysis between the two groups before and after the experiment

Group n/person	Before the experiment			After the experiment		
	Analytical ability	Research ability	Thinking innovation	Analytical ability	Research ability	Thinking innovation
Experimental group 27	0.444	0.185	0.574	0.778	0.722	0.796
Control group 27	0.444	0.259	0.593	0.259	0.537	0.611

p>0.05, p<0.01

Table 4: Comparison of practical ability between the two groups before and after the experim

	Before the experiment			After the experiment		
	Application of knowledge	Job interview	Solving the problems	Application of knowledge	Job interview	Solving the problems
Experimental group 27	0.430	0.259	0.574	0.833	0.778	0.833
Control group 27	0.430	0.185	0.463	0.463	0.259	0.593

p>0.05, p<0.01

difference (p>0.05) in ability of application of knowledge, job interview and solving the problems between two groups before the experiment. The scores of ability of job interview and solving the problems of the experimental group is higher than that of the control group and the scores of ability of application of knowledge are basically the same. However, after three-dimensional practice teaching, student's scores of ability of application of knowledge, job interview and solving the problems of the experimental group are higher than that of the control group, especially ability of job interview, increased by 0.519 points. There are significant differences (p<0.01) between the two groups, as shown Table 4.

It can be seen from Table 4, based on the results of the questionnaire and communication with teachers of the social sports specialty in the process of the experiment, that students' ability of investigation, research, analysis and practical operation is not changed significantly under the instruction of the original teaching methods but students think that the teaching effect of three-dimensional practice teaching is very good, students' ability is upgraded correspondingly in each teaching stage, especially the ability of research, job interview, language expression and communication is significantly improved.

**CONCLUSIONS AND RECOMMENDES**

- Three-dimensional practice teaching demonstrates distinct characteristics in terms of the selection of teaching materials, the formulation of teaching goal, grasping the teaching focus, knowing the teaching subject, compared with the traditional teaching and the general practice teaching. This kind of teaching carries out innovative attempt and reform in the following aspects: nailing down the occupation direction of students, determining the learning objectives and improving students' ability, that is ability of investigation, research and analysis and

practical operation (advisory guidance ability, the management ability), strengthening the knowing of the employing units and enterprises conducted by the teachers and students and students' actual operation in the application of knowledge and skills, strengthening the effectiveness of practice teaching. As a result, the teaching results are obvious

- Three-dimensional practice teaching' has formed open learning atmosphere which students learn actively, cooperatively and inquiringly which benefits students to nail down the occupation direction, to set up learning goals, to urge students to learn the methods of study and communication and cooperation and to enable students to discover their own potential in the process of learning, especially in terms of the promotion of interaction between teachers and students, interaction between teachers, students and the employing units and stimulating students' learning attitude, interest and motivation. Its effect is obviously superior to the traditional practice teaching which is worthy to be popularized in practice teaching
- Three-dimensional practice teaching which takes three-segmentation education + improvement in three kinds of basic ability+ giving prominence to three professional characteristics as route of school-running is advantageous to cooperation between enterprise and school, makes equipment and technology of school and enterprise realize the complementary advantages and resource sharing. Teachers train the staff and the quality of staff is improved. At the same time, enterprises create conditions for the students to conduct social investigation and business practice. Both are promoted each other so that students' abilities of investigation, research and analysis, practical operation and job interview are significantly improved

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