

Research and Exploration on an Integrated System of Practice Teaching of Post Education ——Take Aeronautic Equipments Management Specialty as an example

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ABSTRACT

To strengthen the research of practical teaching theory and the construction of practical teaching system has become an urgent problem in the construction and development of post education college. The major of aviation equipment management, on the basis of studying the law of running a university, correctly grasping the law and training on-the-job talents, has constructed the theory of practical teaching, positioned the goal of practical teaching, set up scientific practical courses, and greatly strengthened the construction of conditions. We have established an integrated system of practice teaching according to post education characteristic and gained much better effect in the implementation of practical teaching.

Keywords: *post education; on-duty qualification talent; an integrated system of practice teaching*

1. INTRODUCTION

It is the fundamental objective of personnel training to cultivate high-quality on-duty qualification talents in the military academies of post education. Therefore, the military academies must focus on the development of practical and applied ability, establish the dominant position of practice teaching, and deal with the relationship between theory teaching and practice teaching. Practice teaching benefits to cultivate students' comprehensive qualities and position ability. It is an important measure to build scientific practical teaching system that demonstrates the school characteristics of post education academies, improves the qualities of personnel training and promotes the development of post education academies quickly. To build and reform practical teaching system has a decisive effect on the qualities assurance of practice teaching.

2. THE CONNOTATION OF AN INTEGRATED SYSTEM OF PRACTICE TEACHING

“Integration” means a close and mutual whole that runs independently. Synthesizing study of scholars, an integrated system of practical teaching, quite simply, integrates each practice teaching link, considers practice teaching that cultivates students' comprehensive ability as

a whole, sets practice teaching plans and outlines, constructs the overall training objective system, and ensures to implement the whole objective through practice teaching which can be carried out. The definition tells us the significance of an integrated system of practice teaching during personnel training, and stresses science and integrity of practice teaching^[1,2].

3. THE COMPOSITION OF AN INTEGRATED SYSTEM OF PRACTICE TEACHING OF AERONAUTIC EQUIPMENT MANAGEMENT SPECIALTY

In order to build an integrated system of practice teaching, we should take into account not only the basic framework both theory teaching and practice teaching, but also the timing of position ability of students at different levels. Meanwhile, we should follow the characteristic of subject knowledge system and professional courses, and focus on internal connecting link among each factor.

Extrapolation method is an effective approach that builds practical teaching system. First, according to the troop demand for talents we ascertain the training objectives. Subsequently, in accordance with professional characteristics of aeronautic equipments management subject, we confirm the basic ideas and build the teaching objective system. Secondly, through the optimization of teaching content and teaching method, we break down the

whole objective into sub-targets and build the teaching content system. Thirdly, in order to practice teaching can be carried out successfully, we build the teaching management system and the teaching security system according to teaching needs. Finally, we build the teaching evaluation system to appraise practice teaching^[3]. Therefore, according to extrapolation method an integrated system of practice teaching of aeronautic equipment management subject is involved in the teaching objective system, the teaching content system, the teaching security system, the teaching management system and the teaching evaluation system and so on.

Practical teaching system is an organic whole. During the operation of practical teaching system, each sub-system not only should play the role of itself, but also coordinates each other. They constitute the overall function of practical teaching system. The practical teaching objective system lies in the driver lay and will change with the variety of army talent demand. The practical teaching content system and the practical teaching evaluation system are located the operation lay. They include numerous teaching activities and evaluation activities. They are the main body of the practical teaching system. The practical teaching security system and the practical teaching management system are situated in the support lay. They are the material and technological basis for the smooth development of the practical teaching system. Among the five ingredients, the practical teaching evaluation system evaluates achievement degree of the teaching objective. Meanwhile, it can provide information feedback for the teaching content system, the teaching security system and the teaching management system. In addition, it will erect an information communication bridge of the whole system to control and coordinate. The practical teaching system of aeronautic equipment management specialty is shown in Fig. 1.

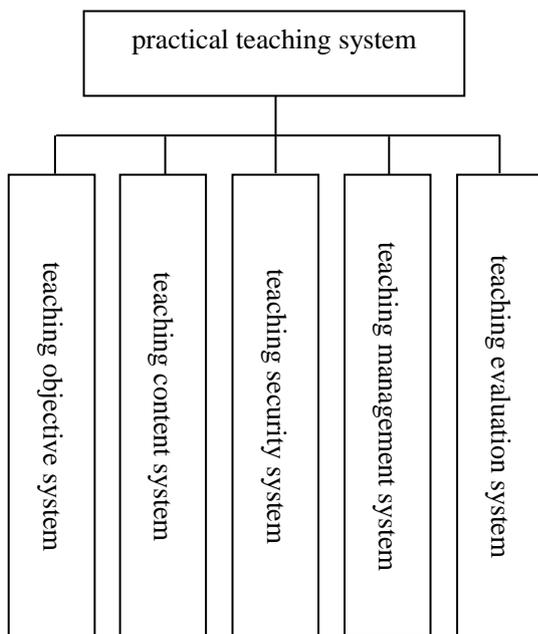


Fig.1 practical teaching system of aeronautic equipment management specialty

4. REFORM AND PRACTICE ON AN INTEGRATED SYSTEM OF PRACTICE SYSTEM OF AERONAUTIC EQUIPMENT MANAGEMENT SPECIALTY

4.1. To ascertain the scientific and clear practical teaching objective system is a basic precondition that realize the practical teaching system

The practical teaching objective system must be devised to enclose the training objectives of post education. For the post education of aeronautic equipment management specialty, on the basis of learning related professional theoretical knowledge, according to information war in the future and information technology development demand of the army, the practical teaching objective is to improve students' position ability and comprehensive ability of financing, supplying and managing aeronautic equipment. The practical teaching objective system can be divided to three levels that include post cognitive objective, post skill objective and post quality objective. Post qualities refer to combined qualities related to position. We have put forward higher requirement for military personnel qualities in high-tech war and information technology development. Students should possess comprehensive qualities of the military of the moment, that include innovative thinking, innovation sense, battle will, dedication spirit, professional ethics, mission sense, interpersonal communication ability, solidarity and cooperation ability, good physical and mental qualities and so on.

4.2. To innovate the systemic and combined practical teaching content system is a crucial factor that realize the practical teaching system[3]

The practical teaching content system is the materialization of the practical teaching objective. The goal and mission of practice teaching can be implemented among every practical teaching content. During practice teaching, students should have learned complete and systemic abilities and qualities that on-duty qualification talents have, not half-baked knowledge. After the depth study of the group and the process of teaching practice, "three modules and three types" is confirmed as the main content of the practical teaching content system of aeronautic equipment management specialty.

"Three modules" includes basic skill training module, professional skill training module and comprehensive skill training module. Organization training ability assessment is one of important content of comprehensive skill training module. It includes design of plan, classroom teaching, professional skill training implementation, etc. The assessment result of organization training ability is composed of individual result and global result. The assessment content deals with lots of knowledge points

related to professional courses, which requires students to analyze and solve the problems by taking combined methods and means. Through this kind of assessment mode, we can train students' knowledge, abilities and comprehensive qualities.

"Three types" refers to basic skill courses, professional skill courses and combined skill courses. During curriculum implementation, we have followed the principle of "theory - practice - theory again - practice again". Then we have optimized the combination and allocate rationally of theory teaching and practice teaching by stages, which makes practice teaching and theory teaching coordinate and support each other at teaching content, teaching methods and teaching conditions and so on.

4.3. To construct the perfect and supported practical teaching security system is a fundamental assurance that realize the practical teaching system

The practical teaching security system is made up of teachers, technical equipment and learning environment, etc. It is an important factor that can restrict and affect the effect of practice teaching. Therefore, we must attach importance to software and hardware input of practice teaching, consummator of teachers, laboratory building, practice base building in school and out-of-school, software development of practice teaching and so forth. Those conditions can provide effectively safeguards for positions of students. The practical teaching security system has achieved "three excellent" which are excellent practice teaching teachers, excellent equipment resources and excellent learning environment.

First of all, it is a fundamental condition to improve practice teaching quality that build a high-quality experimental technology teacher. We have increased the overall qualities of laboratory teachers by the modes that include introduction of talents, out training and in-service education. It have acquired reasonably that the operational capacity, title structure and edge of the structure of academy of laboratory teachers. Meanwhile, we have imported competition and incentive mechanism which can keep laboratory teachers develop stably and promote talented people to stick out. Second, in order to improve the practice teaching security ability, we have established four professional laboratories by constructing lab, importing equipment from the grass-roots units and being presented equipment from corresponding factories. Now we have the security training centre, archive lab, mildew-proofing storage lab and oil analysis lab, which have met practice teaching completely. We have had force direct warehouses and aeronautical equipment sections as "extended unit" of practice teaching measure and built several practice teaching bases. They can meet to develop practice teaching requirements. Finally, the practical teaching environment have formed that teachers love to teach and students love to learn by positive publicity and

education, questionnaire survey before school-opening and student colloquia and so on, which have enhanced practice teaching quality and level fully.

4.4. To establish the efficient and smooth practical teaching management system is a reasonable method that realize the practical teaching system

The management of practice teaching is a dynamic process. We must focus on mutual join of each factor among it, that include organization divide, grouping status, practice task, resource, responsibility and right, etc. Based on good operation of these factors, we can ensure practice teaching to implement effectively. The practical teaching management system is made up of management institution and personnel, management rules and regulations and management means and so forth.

First, the department has formed lean and efficient management institution of practice teaching to unified administration. The management institution takes charge of plan organization, management coordination, quality monitoring of practice teaching, as well as optimal allocation and rational use of all kinds of practical teaching resources of school and out-of-school. The laboratory management adopts two-stage management mode of undertaking together and step responsibility.

Second, according to personnel training objectives, the department has taken a series of management measures of practical teaching links, set down specific documents provision and consummated management rules and supported measures. For one thing, we have established normative documents and management rules and regulations of practice teaching, which includes laboratory subjects, visits, and practice syllabus and laboratory guide books, etc. So these regulations ensure each link of practice teaching to be normative. For another thing, in accordance with requirements of different arrangement training scheme, we have set down concrete quality criteria related to primary practice links that include experiments, visits, graduation practice and organization training ability assessment and so forth and made them systematization through document form. Based on several years summarization and perfection, the practical teaching management system of aeronautic equipments management specialty has realized "three change" of building objective which is composed of science, systematization and standardization.

4.5. To create the functional and specific practical teaching evaluation system is an important link that realize the practical teaching system[4]

The practical teaching evaluation system not only can guide direction, diagnose problems, check effect of

practical teaching, but also can advance lab classroom teaching standardization favorably, improve classroom teaching quality constantly, and achieve training objective of on-duty qualification talents. Five essentials of the practical teaching evaluation system are teaching documents, teaching content, teaching methods and measures, teaching quality and ability, teaching effect. These essentials deal with comprehensive, omnidirectional and multi-level system evaluation that are related to teaching pre-preparation, teaching implementation process and teaching back-effect.

In order to reflect student learning objectively, fairly and roundly, we have revised examination outline of all professional practice courses, reformed inherited assessment and promoted diverse assessment system. The assessment system has overcome the abuses that attach importance to knowledge and make light of ability. It emphasizes the importance of knowledge and skill. It is important the flexibility in the use of knowledge. It is worshipful the enrichment of skills. It is significant the improvement of comprehensive qualities. Practice results are divided to three parts, which include twenty percent of normal results (to build results files of students, which record each practice teaching results), thirty percent of writing of practice reports and fifty percent of practical skill assessment (to choose technical and comprehensive practice subjects as tests). The teaching practice has proved that diverse assessment system can detect operation level of practice skill of students really, which benefits to cultivate position abilities of students.

5. CONCLUSION

Strengthening practical teaching is an important teaching link for the army to train qualified personnel on duty. It is an essential content to deepen reform of practice teaching and increase effect of practice teaching. An integrated system of practice teaching reflects fully culture characteristics that aeronautic equipment management specialty train on-duty qualification talents. After several years practice recently, we have achieved satisfied results and significant effectiveness. From tracking investigations of graduate students, they have showed good position adaptation, fast the role of conversion and got started

strongly. A part of students have been professional key elements of the front-line army. The guarantee and effect of personnel training have been highly praised and widely recognized by the naval aviation forces. But we should recognize clearly that it is a dynamic, complicated and systemic project to build practical teaching system, impossible to reach the goal in one step. According to actual needs of post education, we should reform and perfect the integrated system of practice teaching of nautical equipment management specialty constantly.

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