

Research on the Evaluation System of Military Representatives

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Abstract: In the current practical work, the normative constraints on the evaluation of the training effect of military representatives are still not comprehensive. Some units are more casual in training, and have not evaluated the effect of all courses. Even the most basic "reaction level" evaluation has not been fully implemented, and the implemented evaluation is also very simple. Although there are many aspects worthy of recognition in the training of military representatives, the training effect evaluation is not perfect, which is embodied in the following aspects: the evaluation curriculum is not comprehensive, the evaluation level is not high, and the evaluation method is single. From the aspect of training effect, it is also necessary to conduct a comprehensive evaluation on the realization degree of training objectives, the improvement level of trainees' theory and professional ability, the training of comprehensive quality and other aspects by the task agency that issued the training plan, each sending unit and all trainees, so as to judge the training effect, find out the existing problems and deficiencies, and promote the improvement and perfection of the follow-up training.

1. Introduction

There is no scientific and reasonable evaluation and analysis system for the training effect of military representatives. 6.2.2 "Competence, training and awareness" of Quality Management System Requirements (GJB-9001B) stipulates that "the organization shall: determine the required competence of personnel engaged in work that affects the conformity of product requirements; provide training or take other measures to obtain the required competence when applicable; evaluate the effectiveness of the measures taken;..." Among them, The realistic and sensitive issue of evaluating the effectiveness of the measures taken is before the training of military representatives: after spending a lot of manpower, material resources and financial resources^[1].how much benefit does the training bring to the improvement of the ability of military representatives? How to evaluate the training effect?

2. Evaluation Principle of Training Effect of Military Representatives

First, the principle of objectivity. The principle of objectivity objectively reflects the real situation and essential characteristics of the training of various types of military representatives at all levels. Quantitative indicators and scientific procedures should be used to evaluate as much as possible to ensure a clear dimension. The evaluation results shall be able to withstand retesting and actual work inspection, and shall not change with the change of the test subject. In the process of establishing the indicator system, we must always adhere to the authenticity and objectivity of various information sources^[2].

The second is the guiding principle. Accurately reflect the basic elements, content structure, main links, key directions, training objectives and other essential characteristics of the training of military representatives, and play a positive role in guiding the smooth progress of personnel training. On the one hand, identify problems and gaps, and then analyze the ideas and methods for improving work and find the right direction for work; On the other hand, the scientific demonstration and setting of the indicator system and its weight can provide correct guidance for the training of military representatives to update teaching content, reform teaching methods, improve teaching methods, and scientifically evaluate teaching effects.

The third is the operational principle. In order to be able to carry out the actual evaluation, considering the convenience of teaching and the use of the employer, it must be highly operable. The number of indicator items should be reasonable and sufficient^[3]. It should not only ensure that the basic elements reflecting the training effect of military representatives can be covered, but also avoid seeking perfection and making the indicator system too large; It is not only necessary to make the indicator clear and the evaluation effect real and reliable, but also to simplify the evaluation procedure as much as possible, so as to facilitate the implementation of measurement and evaluation activities and the use of evaluation results^[4].

Fourth, the principle of comparability. Comparability is an important embodiment of the actual effect of the evaluation of the indicator system. The quantitative indicator system of training effect should be able to reflect the vertical changes of talent training effect in different periods and stages, and also be able to compare the training effects of different colleges and universities, teaching units, and different training objects horizontally^[5]. It should also be able to see the differences of training effects at different levels and in different majors.

Fifth, the principle of openness. With the development of military modernization, the training of military representatives will continue to develop and change in content, form, standards and other aspects. Therefore, the quantitative index system of its effect evaluation should be an open system^[6]. In the system design, we should pay attention to absorbing the latest achievements in the training and development of military representatives, and update and improve them in a timely manner, so that they can reflect the characteristics of the times in the training of military representatives.

3. Construction of Evaluation Index System for Training Effect of Military Representatives

3.1. Kirschner Model

Training effect evaluation is a process of collecting training results to measure whether the training is effective. It can find out the shortcomings of training and summarize experience for continuous improvement. The main object of training evaluation is the trainees, or teachers and training organizers. Accurate evaluation of training effect is a necessary link of training work. Because training has both direct and indirect effects; It has both individual effect and overall effect; There are both unilateral effects and multifaceted comprehensive effects. Some are tangible, some are intangible, some are short-term, some are long-term, so the evaluation of training effects is very

complex.

Don Kirkpatrick, a professor at the University of Wisconsin in the United States, put forward the four level model theory in 1959. This model divides the training evaluation into four levels: the reaction level is to evaluate the trainees' satisfaction with the training, the learning level is to evaluate the trainees' understanding and mastery of the knowledge, skills and behaviors introduced in the training process, the behavior level is to evaluate the changes in the trainees' work behavior and performance caused by the training, and the result level is to evaluate the role of the above changes in the organization operation and development^[7]. Among the four levels of evaluation, the first two levels mainly evaluate the training process, and the last two levels mainly evaluate the training results^[8]. This is the most widely used training evaluation model in the world. It has a simple level, comprehensive content, strong logic and operability, and is the framework and basis for the development of training effect evaluation research.

3.2. Idea of Index System Construction

According to the Kirschner model, the training effect of military representatives can be evaluated from the following aspects.

3.2.1. Reaction Layer Evaluation

The response level evaluation is to evaluate the training effect through the trainees' feelings about the training content, teachers and training environment. This level of evaluation occurs during the training, mainly focusing on the participation of trainees, training content, training progress and effect, work quality of training organization personnel, training communication mechanism, teachers' ability, etc. Because the trainees will form some feelings, attitudes and opinions during and after the training, which involve all aspects of the training, such as whether the training objectives are reasonable, whether the training content is practical, whether the training methods are appropriate, whether the teaching methods are effective, and whether the teachers' knowledge level is high or low. These questions can be designed as anonymous questionnaires. During and after the training, the trainees are required to answer truthfully. The questionnaire survey can not only save time and manpower, but also make the results easy to quantify, statistical processing and analysis. At the same time, it is supplemented by interview with trainees and on-site training observation. A good evaluation of the response level can help us grasp the training process in a timely manner, check the work and learning of the training organization's managers, teachers, and students, eliminate negative factors that are not conducive to training, and adjust the inappropriate content or incompetent teachers in a timely manner to strive for the realization of the training objectives. However, it should be noted that the good "reaction" of the trainees to the training project does not mean that they have really "learned" something from the training. Teachers may conquer the trainees with good eloquence, but the content of their lectures may not be practical.

3.2.2. Learning Level Evaluation

Learning level evaluation is also conducted during and immediately after the training to evaluate whether the trainees have mastered the knowledge and skills taught in the training. In the training process and after the training, the trainees shall be examined or assessed. Written examination and questioning can be used for the examination. Classroom discussion, role play, simulated practice, real operation and other methods can also be used for the examination. The assessment can be conducted by the trainees writing their experiences after training, discussing articles and other methods to test the training effect. However, it should be noted that there is still a big difference between "knowing" knowledge and skills and "using" them. Excellent performance in training does not necessarily

automatically transfer to work, let alone prove its contribution to unit performance.

3.2.3. Behavior Evaluation

The evaluation of behavior level can adopt comprehensive training performance evaluation, that is, to evaluate the same training course, multiple roles, the same evaluation object, and multiple dimensions. For the results of multi role and multi-dimensional evaluation, different elements are extracted according to different evaluation purposes, and different weights are determined to obtain the final training performance evaluation results. The comprehensive training performance evaluation includes three dimensions, namely, the evaluation in the early stage of training, the evaluation in the training process, and the evaluation after training. The evaluated work behavior variables include work attitude, standardization of work behavior, proficiency of operation skills, ability to solve problems, etc. In the evaluation process, teachers, training management departments, and trainees themselves are not only training participants, evaluators, but also training evaluators. In the evaluation, first judge whether the trainees' work behavior has changed, then analyze whether the change is caused by the training, find out the relationship between the training and personal performance changes, and the extent of the trainees' work behavior changes. The post training evaluation should be conducted 3-6 months after they return to their posts to ensure that the trainees have sufficient opportunities to put into practice what they have learned from the training. You can compare the situation of untrained personnel with that of trainees, so that you can more accurately judge which personal behavior changes are caused by training. In practical operation, some simpler methods can also be used. For example, the evaluator summarizes the personal behaviors that may change in advance, and then interviews the trainees' superiors, peers, subordinates and themselves to summarize the impact of training on the trainees' personal behaviors.

3.2.4. Result Level Evaluation

Result level evaluation is the most difficult part of training effect evaluation. Because the training results must be measured after a period of training, training is only one of the factors that may cause changes in the "results". Even if the results change after measurement, it is difficult to determine that such changes are caused by training, because there are many other important factors that will affect the performance of the unit, such as the adjustment of the staffing system, the replacement of unit leaders, the change of personal rank, the change of policies and regulations, the change of interpersonal relationships Personal self-study and so on. Moreover, some training projects, such as management concept, thinking method, cultural knowledge, moral cultivation, etc., need long-term subtle influence to produce effects. It is difficult to find what kind of "results" are directly related to training. We can select some quantifiable indicators most concerned by quality management related posts, such as quality, progress, safety, cost, failure rate, customer satisfaction, etc., and compare them with those before training. The cycle can be extended to half a year or one year, so as to determine the overall contribution of the training to the sending unit.

4. The Construction of Military Representative Evaluation System

According to the Kirschner model and the construction idea of the evaluation index system of the training effect of military representatives, the framework of the evaluation index system of the training effect of military representatives is obtained, as shown in Figure 1 below.

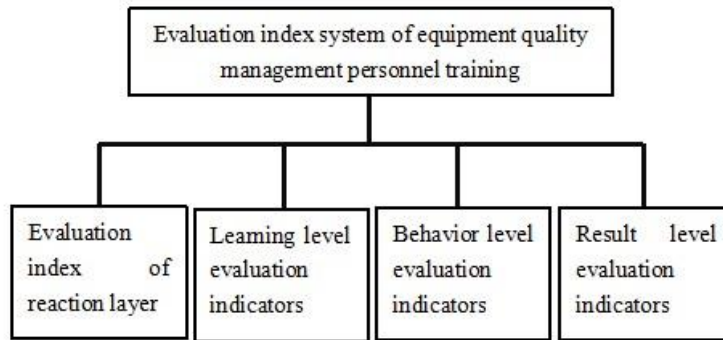


Figure 1: The framework of the evaluation index system for the training effect of military representatives

Table 1: Military Representative Training Evaluation Indicator Set

First level title	Secondary level title	Key points of evaluation
Evaluation index of reaction layer	Teaching content	Whether the teaching content is applicable and consistent with the training objectives
	Instructor	High or low level of teaching knowledge, conscientious and responsible
	Training environment	Good environment for learning
	Communication mechanism	Communication channels are unblocked and feedback is handled in a timely manner
	teaching method	Effective training and proper teaching methods
Learning level evaluation indicators	Classroom performance	Listen carefully and interact actively
	Exercises after class	Careful operation with correct results
	Simulated Practice	Skilled operation and proper action
	Discussion and exchange	Active discussion and sufficient communication
	Written examination assessment	Careful answers and correct analysis
Behavior level evaluation indicators	working attitude	Work attitude was further improved
	Work behavior	Further standardize work behavior
	Operating skills	Improvement of operation proficiency
	Actual capacity	Improve the ability to solve problems
Result level evaluation indicators	Completion of quality objectives	Document implementation degree
	Nonconformity control	Occurrence and solution of nonconformities
	Quality cost control	Effectively control quality cost
	Customer satisfaction	Customer satisfaction with related products

In combination with the actual content of the training of military representatives, the evaluation indicators of the training of military representatives were preliminarily collected and analyzed by

using field collection, expert investigation and other methods, and the following set of indicators was formed, as shown in Table 1.

4.1. Guiding Ideology of Assessment

Establish a reasonable and standardized assessment system, cultivate the students' rigorous and realistic scientific attitude and scientific and effective learning methods, make the equipment quality management personnel training an effective way to improve the students' post holding ability and innovation ability, make the students become the protagonists of active learning, and be able to actively seek for research learning by using the school's teaching resources, At the same time, objectively check the teaching effect of teachers, the learning of students and the skills of comprehensively applying knowledge to solve problems through examination.

According to the guiding ideology, the formative evaluation should replace the traditional summative evaluation in the evaluation of equipment quality management personnel training. Because the simple summative evaluation is teacher centered and the evaluation standard is single, it can no longer meet the needs of teachers' teaching and students' learning^[9]. However, formative evaluation focuses on students' feelings, and it is a kind of continuous development evaluation by means of various factors and methods.

4.2. Basis of Diversified whole Process Assessment System

Because the training of equipment quality management talents generally adopts the mode of comprehensive teaching and special teaching, and many teachers participate in the teaching, the formative assessment and evaluation of equipment quality management talents needs to be timely explained to the teacher team and students before the course starts, and the diversified formative assessment and evaluation system of the whole process is adopted for talent training^[10].

The so-called whole process means that at the beginning of the course, the students continuously collect their performance data during the whole process of the students. The students' performance in various courses is recorded continuously before, during and after the class. In this way, it is not only an all-around continuous assessment of students, but also a whole process of supervision and reminder of students.

On this basis, construct diversified evaluation elements according to the teaching content, including students' attendance, team spirit, interpersonal communication and cooperation ability; Class listening status, active communication, feedback interaction; Practical performance, written examination answer, case preparation; wait. Comprehensive evaluation and assessment shall be conducted for the trainees with diversified elements.

4.3. Establishment of Assessment Criteria

The main body of the evaluation includes teachers and students, who need to complete three contents: student self-evaluation, group mutual evaluation, and teacher evaluation. Specific evaluation criteria are shown in the table.

Although self-evaluation is not objective and fair to some extent, there are some internalized things that others cannot evaluate, so they cannot be lacking.

The mutual evaluation of the members of the group can complement the evaluation of the teachers, because the teachers face many students, and it is inevitable that some places will lose sight of each other. All the members of the group complete the whole problem analysis and exploration process together, and they know each member's performance better than the teachers; The mutual evaluation of the members of the group can also play a complementary role in the self-evaluation of the trainees,

because the mutual evaluation is more rational and objective than self-evaluation to a certain extent^[11].

The evaluation of teachers can adopt the combination of group evaluation and individual evaluation. First of all, teachers should evaluate the group, so as to strengthen the students' sense of teamwork; Second, the speakers of the group represent the crystallization of the collective wisdom of the team rather than personal views. Teachers' personal ratings will be biased towards the group speakers, which is unfair to other students; Third, due to the division of labor within the group, teachers can not make a comprehensive and complete evaluation of individual trainees because each student performs different tasks in some links; Although it is not appropriate for teachers to quantify the personal evaluation of students, they can combine observation and oral evaluation to evaluate the students' behaviors observed in the teaching process. Secondly, you can also choose to take a paper and pencil test to evaluate the students' mastery of relevant knowledge. Although the evaluation of the whole process of equipment quality management personnel training diversification focuses on the learning process, it does not mean that it will no longer pay attention to the learning results. In this way, it pays attention to both the improvement of ability and quality and the construction of knowledge. Moreover, the paper and pencil test can also make the evaluation system more objective and fair, so it should not be abandoned directly.

4.4. Comprehensive Assessment Results

The final results of formative evaluation should be based on the corresponding proportion of students' self-assessment, group evaluation and teachers' evaluation to obtain comprehensive results. For example, a comprehensive mark up can be made based on the proportion of 20% of students' self-evaluation, 20% of group evaluation and 60% of teachers' evaluation.

5. Summary

The establishment of the equipment quality management personnel diversification assessment system in the whole process is not the end of the final score, but should be based on the analysis of the usual records and evaluation results, once again in-depth analysis of the students' personal comprehensive quality, in-depth reflection on the course teaching, and put forward targeted suggestions for the next step of teaching, sending and unit work.

The whole process assessment system of equipment quality management personnel diversification combines the teacher's evaluation of students, students' evaluation of students, and students' own evaluation of themselves; In the next step, we can also explore the evaluation and feedback of students on teachers on this basis, so as to achieve the long-term effect of promoting learning and teaching by evaluation.

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