



Research on the Specialized Organizational and Training Ability Certification of Equipment Application for College Students

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Abstract. This article defines the concept of specialized organizational and training ability certification for college students regarding equipment application. Based on the certification content, this article focuses on formulating standards, methods, processes, and approaches for specialized organizational and training ability certification. Suggestions for improving the certification process are proposed to promote the scientific and standardized certification of specialized organizational and training ability for equipment application among college students, and to enhance the quality of their training in this area.

Keywords: group training · ability · certification · professional · training

1 Introduction

Graduates from vocational colleges are required to work at the grassroots level to organize and implement training, which is known as organizational and training ability. The ability to engage in the organization and implementation of equipment application-related work is referred to as specialized organizational and training ability (hereinafter referred to as specialized organizational and training ability). To evaluate the qualification of students' specialized organizational and training ability, it is necessary to establish a specialized organizational and training ability certification system and corresponding certification norms (methods) and measurement standards. The certification of students' specialized organizational and training ability is an assessment activity that aims to certify that a student's specialized organizational and training ability meets relevant standards, conducted by a certification body recognized by the relevant academy.

At present, the professional training group training ability certification in vocational colleges lacks an overall group training ability certification system, the elements of certification content are not complete enough, the standards for certification are not uniform, the scientific rationality is lacking, the operability of certification methods is not strong, and the completeness of certification processes is lacking [1]. The existence of the above problems makes it difficult for vocational colleges to scientifically, reasonably, and objectively evaluate and certify students' professional training group training abilities,

and it is difficult to control the overall level and quality of students' professional training group training abilities.

To organize the certification of students' specialized organizational and training ability, this article mainly designs the certification system for students' organizational and training ability from four aspects: certification content, certification standards, certification methods, and certification processes, preliminarily constructing the certification system for organizational and training ability, and providing a reference for academies to organize the certification of students' specialized organizational and training ability.

2 The Content of Specialized Organizational and Training Ability Certification

Based on the summary of professional training practical teaching experience, questionnaire survey, expert discussion, and literature reference, the indicator system of specialized organizational and training ability mainly includes 10 indicator elements such as the ability to master regulations, the ability to write teaching plans, the ability to prepare for training, the ability to issue course objectives, the ability to explain and demonstrate, the ability to organize and implement, the ability to inspect and guide, the ability to organize assessment, the ability to summarize and evaluate, and the ability to ensure safety [2–4]. The certification of specialized organizational and training ability should also be evaluated closely around these 10 indicator elements. Based on the evaluation scores of these 10 indicator elements, the certification conclusion of organizational and training ability will be formed.

3 The Standard of Specialized Organizational and Training Ability Certification

The standard of specialized organizational and training ability certification is the “ruler” of certification work, and its scientific and rational nature directly determines the success or failure of certification. Based on the 10 indicator elements and their contents included in the indicator system of specialized organizational and training ability, this article further refined the indicator system and preliminarily formulated the “certification standard for specialized organizational and training ability of students in school” by inviting many experts from colleges and grassroots organizations to participate [5]. The data source used to formulate the standard was obtained through anonymous scoring by experts, and the data analysis was conducted using the analytic hierarchy process (AHP) (omitted in this article). According to the final statistical analysis data, the “certification standard for specialized organizational and training ability of students in school” [6] was formulated as shown in Table 1.

4 Organizational and Training Ability Certification Method

Organizational and training ability certification is not exactly the same as course assessment. It is a type of ability certification that requires a well-designed and comprehensive process. The process should cover the entire process of completing the organizational

Table 1. Certification standard for specialized organizational and training ability of students in school

Category	No.	Index	Weight	Evaluation Criteria
certification standard for specialized organizational and training ability	1	Legal Regulations Mastery	5	Evaluation based on online course assessment scores: 1. Score of 95 or above, rated as 5 points 2. Score of 90 or above, rated as 4 points 3. Score of 85 or above, rated as 3 points 4. Score of 80 or above, rated as 2 points No qualification for scores below 80.
	2	Teaching Plan Development	10	1. Deduct 2 points for non-standard format and unclear organization of homework guidance method 2. Deduct 1 point for incomplete elements 3. Deduct 1 point for inaccurate or incomplete training content 4. Deduct 2 points for unreasonable arrangement of training sessions and lack of emphasis 5. Deduct 2 points for vague training methods and unclear measures

(continued)

Table 1. (continued)

Category	No.	Index	Weight	Evaluation Criteria
	3	Training Preparation	10	<ol style="list-style-type: none"> 1. Deduct 2 points for not setting up the training site before the training begins 2. Deduct 2 points for non-standard setup of training site and 1 point for incomplete elements 3. Deduct 1 point for each missing training equipment 4. Deduct 1 point for disordered arrangement of training equipment 5. Deduct 2 points for not checking the equipment condition before the training begins
	4	Assignment of Training Content	10	<ol style="list-style-type: none"> 1. Deduct 1 point for each missing content of the training assignment 2. Deduct 1 point for each incorrect order of the training assignment 3. Deduct 2 points for not being proficient in the training assignment content 4. Deduct 1 point for each improper voice, unclear pronunciation, lack of military bearing, and incorrect posture 5. Deduct 1 point for lack of high morale and strong infectious power

(continued)

Table 1. (continued)

Category	No.	Index	Weight	Evaluation Criteria
	5	Explanation and Demonstration	15	<ol style="list-style-type: none"> 1. Deduct 2 points for inconsistency between explanation and demonstration 2. Deduct 2 points for incorrect explanation content or demonstration movements 3. Deduct 2 points for non-standard and irregular explanation 4. Deduct 2 points for non-standard demonstration movements 5. Deduct 2 points for unclear, unrefined, and unorganized explanation 6. Deduct 2 points for improper voice, unclear pronunciation, and bad image and temperament 7. Deduct 2 points for lack of military bearing, improper teaching posture, and lack of enthusiasm

(continued)

Table 1. (continued)

Category	No.	Index	Weight	Evaluation Criteria
	6	Implementation of Organizational and Training Plans	15	<ol style="list-style-type: none"> 1. Deduct 2 points for loose training organization and 1 point for unreasonable content arrangement 2. Deduct 2 points for failure to thoroughly teach and practice, and lack of detailed training 3. Deduct 1 point for each single training method and 1 point for lack of teaching interaction 4. Deduct 2 points for unreasonable activity arrangement of the secondary coach and 1 point for lack of organizational skills 5. Deduct 2 points for unreasonable control of training progress and rhythm, and 1 point for failure to handle occasional events in a timely manner 6. Deduct 2 points for failure to fully mobilize the enthusiasm and creativity of personnel, and lack of training enthusiasm 7. Deduct 1 point for lack of military bearing, uncivilized language, and non-standard queue movements 8. Deduct 2 points for lack of strict training requirements and disorderly order

(continued)

Table 1. (continued)

Category	No.	Index	Weight	Evaluation Criteria
	7	Guidance and Inspection	15	<ol style="list-style-type: none"> 1. Deduct 2 points for not providing timely guidance and 1 point for lack of specificity in targeting training needs. 2. Deduct 2 points for not identifying the root cause of existing problems based on their symptoms. 3. Deduct 2 points for not being able to explain specific techniques and problem-solving methods correctly. 4. Deduct 2 points for not conducting ideological work in conjunction with training, and 1 point for lack of specificity in ideological work.
	8	Organization and Assessment	10	<ol style="list-style-type: none"> 1. Deduct 2 points for failure to organize training and assessment. 2. Deduct 2 points for inadequate or irregular organization. 3. Deduct 2 points for failure to evaluate training performance. 4. Deduct 1 point for evaluation errors.

(continued)

Table 1. (continued)

Category	No.	Index	Weight	Evaluation Criteria
	9	Summary and Evaluation	5	<ol style="list-style-type: none"> 1. Deduct 2 points for failure to organize training summary and evaluation. 2. Deduct 1 point for lack of specificity in training summary and evaluation. 3. Deduct 2 points for failure to summarize and explain the strengths, weaknesses, key points, and precautions of the training. 4. Deduct 1 point for not conducting ideological work in conjunction with training, and 1 point for lack of specificity in ideological work.
	10	Risk Prevention	5	<ol style="list-style-type: none"> 1. Deduct 5 points for not clearly specifying safety and accident prevention regulations. 2. Deduct 1 point for measures that are not specific or effective. 3. Special case: if an accident occurs during training, the performance will be directly evaluated as “failed.”

and training ability assessment, taking into account the formation process of students' organizational and training ability. In this article, we construct a full-chain organizational and training ability certification method with “qualification review, intensive training, lesson plan development, and evaluation and certification” as the content of each stage, forming a more scientific, complete, and operationally strong ability certification method (See Fig. 1).

Qualification Review: First, applicants undergo a qualification review, and only those who meet the corresponding conditions are eligible to participate in the certification.

Training Reinforcement: To provide adequate preparation for the candidates, all candidates are arranged to participate in extracurricular training reinforcement, and candidates are required to write teaching plans for the reinforcement training courses, while teachers participate in guidance for the reinforcement training.

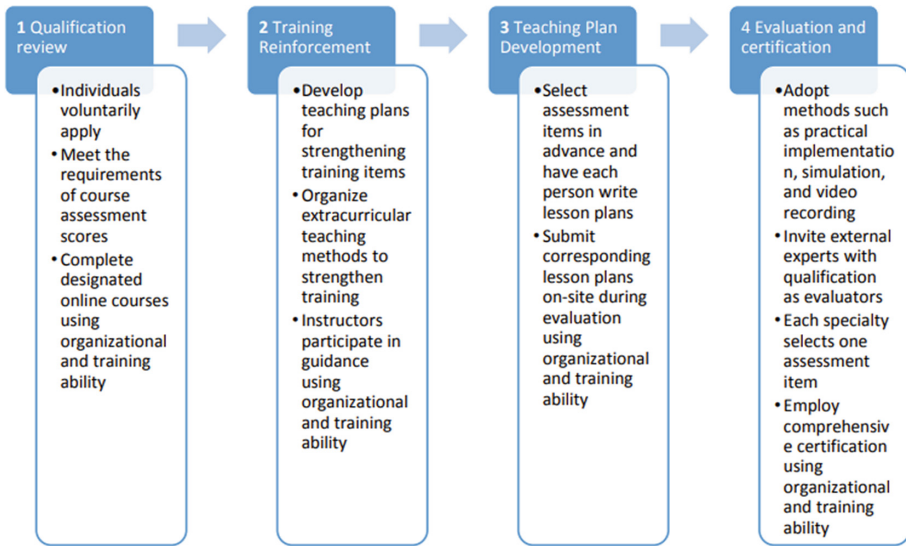


Fig. 1. Certification Method for Specialized Organizational and Training Ability

Teaching Plan Development: Before the assessment, each person draws a specialty assessment subject and develops the corresponding teaching plan, and submits the corresponding course plan on-site during evaluation.

Evaluation and certification: During the evaluation, a comprehensive certification approach is adopted, which invites multiple experts to participate in the evaluation. The evaluation and scoring are based on the professional standards of organizational and training ability, and the scores given by the experts are summarized to provide an assessment and certification score [7].

5 The Process and Methods for Organizational and Training Ability Certification

Based on the certification method for organizational and training ability, the following specialized certification process is formulated:

Individual Registration: Individuals voluntarily apply for certification based on the reference qualification requirements and meet the conditions for participation.

Establishment of the Evaluation Team: Led by the college's academic department, the relevant teaching and research departments recommend teachers, and at the same time, invite external experts who have the qualifications of evaluators to jointly form the evaluation expert group responsible for organizing and implementing qualification review, enhanced training, and certification evaluation. Internal experts are responsible for qualification review and enhanced training, while external experts are responsible for the final certification evaluation.

Qualification Review: Internal experts review the qualifications of applicants, requiring a certain score in the teaching method course assessment, such as achieving a score

of good or above, and achieving a score of 80 or above on the online course examination in order to participate.

Training reinforcement: Organized by internal experts, extra-curricular training reinforcement is arranged for the applicants. The training reinforcement usually includes a certain number of specialized hours arranged outside of regular class time. The participants are grouped and trained accordingly, and the experts are responsible for on-site guidance. Afterwards, an organizational and training ability qualification certification assessment is conducted. Both the training reinforcement and the certification assessment do not count as regular class hours.

Inviting External Experts: External experts with evaluator qualifications are invited to conduct the final certification evaluation.

Evaluation Method: Evaluation methods can include practical implementation, simulation, video recording, etc. Based on actual situations, external expert groups will determine the specific evaluation methods. Each major can choose from three evaluation methods in a given year. Practical implementation means organizing and implementing the organizational and training evaluation with actual equipment. Simulation involves using simulators for on-site evaluation. When conditions are not met, video recording is used to evaluate scores, but it must be “uninterrupted” and not edited.

Assessment criteria: Based on the organizational and training ability certification standards, the assessment is conducted by assessment experts on site, and a percentage system is used to evaluate the group training. Before the assessment, the assessment expert team can review and plan the organizational and training ability certification standards, discuss and revise any inappropriate aspects, and establish the final standard. However, the indicators and weights in the organizational and training ability certification standards must not be modified [8].

Assessment content: Multiple subjects are prepared for each profession, and the assessment expert group supervises the process. The assessment subjects are drawn by the participants one day in advance, and each participant selects one subject for assessment. They then prepare the corresponding lesson plan and organize the implementation accordingly.

Lesson Plan Development: The assessors develop corresponding coursework guidance for the selected courses, prepare necessary teaching aids, equipment, and training materials. During the evaluation, they provide the lesson plan for the corresponding course for experts to assess the results.

Assessment Implementation: The personnel selected for the same course are grouped together, and each member of the group is assessed individually. One person is responsible for commanding, while the other members cooperate in the assessment. The assessors provide the lesson plan on-site, and then conduct the group training assessment. The experts evaluate and score the performance on-site.

Qualification Certification: A comprehensive certification approach is taken, and all professional assessments must pass. Only then can one obtain the qualification of specialized organizational and training ability above the passing level. If one fails to pass a specific course, the overall score is directly assessed as unqualified.

Certification Level: According to the professional certification standards for organizational and training ability, each course in each profession is scored, and then the

average score is calculated. A score of 90 or above (inclusive) is evaluated as advanced; a score of 80 or above (inclusive) is evaluated as intermediate; and a score of 60 or above (inclusive) is evaluated as primary.

6 Suggestions for Strengthening the Certification of Specialized Organizational and Training Ability

Improving students' specialized organizational and training ability is one of the important ways to solve the problem of graduates not being able to adapt to the workplace. Organizing certification for students' specialized organizational and training ability in school is also an effective form and means to promote the cultivation of students' such ability. All levels should attach importance to the certification of specialized organizational and training ability, have a unified understanding, and cooperate closely. Based on professional training and qualification certification, the certification should be more practical and closer to the actual content.

First of all, the certification of specialized organizational and training ability should be integrated into the system for cultivating specialized organizational and training ability, with a unified design. After the implementation of the curriculum for organizational and training ability, students who meet the requirements can participate in the certification examination and are encouraged to actively participate.

Second, emphasis should be placed on the scientific nature of certification for specialized organizational and training ability. The organizational form, methods, and certification methods should be carefully considered to ensure the legitimacy and effectiveness of the certification.

Third, the standardization of certification for specialized organizational and training ability should be emphasized. First, the relevant regulations and documents should be strictly followed to ensure the legality and fairness of the certification conclusions. Secondly, the process and methods should be strictly followed to ensure the legitimacy and rationality of the certification [9].

Fourth, comprehensive assessment of the content should be emphasized during the certification examination. The certification examination for specialized organizational and training ability is a comprehensive evaluation of students' organizational and training ability, and is also an assessment of a student's ability to perform a job. Therefore, during the certification examination, attention should be paid to the comprehensiveness of the assessment content, and not just focus on a few aspects. The examination should cover all elements from the planning and implementation of course content, to the planning and implementation of lesson plans, to the management of the process, to the summary and review, and the development of teaching materials, with an overall assessment of the students' abilities [10].

7 Conclusions

The paper designs the certification of professional training group training ability from four aspects: certification content, certification standards, certification methods, and certification process. It clarifies the certification content, formulates certification standards, proposes certification methods, and develops certification processes, forming a

scientific, complete, and highly operational professional training group training ability certification system. Suggestions are also proposed to strengthen the certification of professional training group training ability, It promotes the scientific and standardized certification of professional training group training ability for vocational college students' equipment application, and has positive guidance and reference significance for improving the quality of professional training group training ability cultivation for students in school.

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