# A Study on the Evaluation of Learning Performance of Teachers' Vocational Education

## Changsheng Ma, Yunfei Xue, Tao Liu

*College of Aviation Foundation, Naval Aviation University, Yantai, Shandong, 264001, China*
*274198316@qq.com*

**Abstract:** *The ultimate aim of teacher's vocational education is to carry out the policy of setting up a moral tree and promoting the improvement of students' ability.In order to achieve comprehensive, real, scientific and effective performance evaluation, the design method of evaluation indicators can not be single, it must be diversified and multi-perspective.This paper analyzes the present situation of teacher's vocational education learning performance evaluation from three aspects: the purpose of performance evaluation, the subject of evaluation and the way of evaluation, and studies the performance evaluation mode from these three aspects.At the same time, it puts forward the way of mixed evaluation on line and on line, and designs the performance evaluation model by setting up the grading evaluation index and combining the conception of the cumulative item index.*

**Keywords:** *teacher vocational education; performance evaluation; evaluation index; evaluation model*

## 1. Preface

With the development of the times, more and more attention has been paid to the knowledge level and ability accomplishment of the younger generation. In order to improve students' knowledge level and ability accomplishment, the improvement of teachers' ability is one of the most important links. And do a good job of teacher's vocational education, is one of the most important links. This paper studies the performance evaluation of teacher's vocational education learning.

## 2. Definition of performance evaluation

Performance refers to the degree to which an organization or an individual, under certain resources, conditions and circumstances, can accomplish a task, and is a measure and feedback to the degree to which the goal is achieved and the efficiency to which it is achieved. Performance evaluation is to use qualitative or quantitative methods to analyze, compare and evaluate the performance of an organization or an individual, and to guide future practice according to the results of the evaluation[1].

Performance evaluation, which began in the early 20th century, was originally a tool of enterprise management, including individual performance evaluation and organizational performance evaluation[2].In 1916, Henry Fayol, a pioneer of classical western management theory and the father of management theory, published "Industrial Management and General Management", which extended performance evaluation from industry and commerce to various human organizations[3].Performance evaluation is a regular and important content of human resource management, and it is also the central link in the process of human resource management.According to American organizational behaviorist John Ivanovich, performance evaluation can not only provide basis for staff's job change and salary distribution decision, but also allocate human resources reasonably through performance evaluation to maximize benefits and provide information for work plan and human resource planning.It can be seen that performance appraisal has more extension of purpose than traditional evaluation, which extends the function of evaluation, makes the evaluation more powerful and exerts more influence on the person being evaluated[4].

## 3. The Status Quo of Teacher's Vocational Education Learning Performance Evaluation

At present, teachers' vocational education has been carried out in an all-round way all over the country, taking the way of on-line and off-line mixed development, which provides a platform for all

teachers to learn knowledge, broaden their horizons and enhance their abilities. However, vocational education learning appears to take a "shortcut" situation: on-line learning course teachers in the absence of people, curriculum replacement, exam replacement, certificate even if completed, and so on, the existing performance evaluation department is not sound is one of the important reasons for these situations.The analysis of existing problems is as follows:

There is a lack of long-term planning and consolidation of prior knowledge for the purpose of assessment. In the existing performance evaluation indicators, most of the indicators only focus on the current stage, ignoring the review of the past and future development of the subject, most of the current stage of the content and performance of the assessment.

The evaluation subject aspect, the main body is unitary. On-line assessment is carried out by the department chief, and on-line assessment is carried out by the vocational education platform system. This makes the evaluation results of under-line department chief officer easy to appear subjective, humanized phenomenon, makes the evaluation data become "water injection" data; and on-line system evaluation results easy to appear one-sidedness, static phenomenon, makes the evaluation data become "performance" data.

In the way of evaluation, vocational education learning performance evaluation focuses more on "achievement" and neglects" effectiveness", which distorts the direction of evaluation. That is, in the existing vocational education learning performance evaluation, as an important indicator of the assessment only includes whether to complete the study and the course evaluation score two, it is difficult to reflect the evaluation of the effectiveness of learning. And at present, teacher vocational education learning performance evaluation has not formed a complete system, often on-line platform education, offline learning task one, the overall presentation of fragmentation, inheritance of the evaluation system, what to think of, how to comment on the past and now how to evaluate.

These problems can easily lead to the evaluation results floating on the surface, difficult to reflect the actual situation, and ultimately make the evaluation results easy to lack of comprehensiveness, authenticity, scientific, long-term.

## 4. The Idea of Learning Performance Evaluation Model for Teachers' Vocational Education

In order to achieve comprehensive, real, scientific and effective performance evaluation of teacher's vocational education, the design method of evaluation index should not be single, but should be diversified and multi-perspective. In the process of evaluating organizational performance, we must start from different perspectives, moreover, performance is multi-faceted, so we should adopt compound evaluation method to reflect the overall situation of organizational performance comprehensively[5]. This paper will design the performance evaluation model of teacher's vocational education from the following three aspects.

### 4.1. Purpose of Assessment

The purpose of the performance evaluation of teacher's vocational education is not only to cultivate learning talents, so that the reviewers can transform passive learning into active learning, and cultivate the concept of lifelong learning of the reviewers, but also to enhance the self-accomplishment of the reviewers, improve the professional ability of the reviewers, and consolidate and improve the existing knowledge. The ultimate goal is to carry out Xi Jinping's idea of strengthening the army, to carry out the education policy of the new era in an all-round way, to carry out the policy of building virtue and building people, and to promote the improvement of students' ability.

### 4.2. Evaluation Subject

The diversification of evaluation subjects is a basic principle to ensure the effectiveness of performance evaluation, in which the scientific proportion of evaluation subjects is a key point in the effectiveness of comprehensive evaluation[6]. Each different evaluation subject has its own unique evaluation angle, which can greatly expand the evaluation surface and enhance the comprehensiveness of the evaluation result. Moreover, the evaluation subject of a specific identity often has its own evaluation limitation which is difficult to overcome, for example, the educational platform can only evaluate the learning behavior of the appraised person on the network, which is too one-sided. It is also difficult to determine the authenticity of the assessment results. Considering the cost of evaluation, it is

not realistic to evaluate the whole staff. Therefore, the evaluation team should be set up reasonably, considering the economy and science. In the author's opinion, the performance evaluation subjects of vocational education should at least include the system of learning platform, the department principal, the colleagues of the appraised personnel, the evaluation objects themselves and the third-party evaluators.

Most of the vocational education learning platform system is a kind of evaluation subject of complete program output results, and is one of the main evaluation subjects in the assessment of teacher's vocational education learning at present. It mainly evaluates the learning situation of the network course, and takes the quantitative assessment method as the main method, which is objective, fair and easy to analyze, but at present, the evaluation index is simplified. The main body evaluation method is easy to "take a back door" and "take a short cut". For this reason, should aim at this kind of problem as far as possible detailed to evaluate the method to carry on the refinement, if can show after class problem at random after the content that learns in the course and time limit makes answer, with problem completion ratio to decide the course study degree; The course exam can arrange offline computer room unified examination, in view of different teacher time conflict problem, carry on cent batch to register, the question bank draws a question and so on way.

In general, the evaluation subjects are familiar with the business and understand the daily learning status of the reviewers, and understand the quality of the reviewers' learning. The evaluation of the subject of this kind of assessment is mainly qualitative evaluation, and it is easy to reflect the performance which is difficult to respond accurately in the learning situation of the subject, but it is easy to hide the subjective arbitrariness of the subject of this kind of assessment and the possibility of passing through the field. In view of this situation, some restrictive measures should be set up: first, as far as possible, the elements contained in the indicators are clear and comparable, and there are certain quantifiable factors, which can be explained in detail as follows; secondly, the evaluation results of the main body of this kind of assessment can be analyzed as a whole, and the related degree analysis system can be set up to compare the evaluation results, and the evaluation results can be graded. Then the evaluation result of the evaluation subject itself is affected in reverse.

The subject itself as the evaluation subject can simplify the evaluation procedure, save the cost, but also disguised can let the assessment personnel better understand themselves, but, many people to self-assessment remain skeptical attitude, many people think that self-assessment is easy to flow in form, because self-assessment often tend to overestimate themselves, resulting in results distortion, in fact, self-assessment as long as the design is appropriate, To frame the content that is easy to compare and measure, the evaluation result can be regarded as the component of the final performance evaluation. Self-assessment can take the form of psychological test, that is, to provide a series of questions for the participants to choose their own results, using the evaluation system to analyze the results, to make an assessment results, to increase the objectivity of self-assessment.

Third-party evaluators mainly come from the outside, such as hiring experts for evaluation, which may produce higher evaluation costs, but the data obtained are often more objective and professional. As the evaluation subject, the expert can analyze and quantify the existing evaluation results, such as the validity of the evaluation results and the relevance degree of the learning content.

### 4.3. Appraisal Methods

In order to explore a scientific and effective performance evaluation model, the evaluation method should be diversified and fit for the concrete practice. The pluralism of evaluation methods can reflect the evaluation results obtained from various angles and enrich the content of the evaluation, and it is important to perfect the theoretical framework of the appraised personnel, which is based on the work done by the appraised personnel. Here, the author will make further exploration on the basis of the performance evaluation model of vocational education in a certain school.

### 4.3.1. On-line and Off-line Mixing Assessment

With the development of the Internet, the way of vocational education learning has evolved into a situation in which online learning is the main and offline learning is the auxiliary. This situation not only reduces the expenditure of funds to a certain extent, but also makes it more convenient for teachers to communicate with each other. However, despite the increasing development of the way of learning, the way of performance evaluation still depends on the old way. And on-line evaluation and assessment is basically cut off, the comprehensive consideration is only concerned with whether qualified, which is obviously not in line with the goal of improving teachers' ability level. In the author's opinion, not only the training mode should be mixed on-line and off-line, but also the

performance evaluation should be on-line and under-line as a whole.

In the author's opinion, the off-line performance evaluation can be divided into different parts according to the main body, but it should be integrated into a comprehensive analysis in the end. After the evaluation results of each subject are obtained, all the results can be submitted to the cloud platform for analysis and comparison, the same category items in the evaluation results can be merged, the ambiguity items can be taken out separately, and the third party (mostly hired experts) and the evaluation subjects can consult each other and finally make a trade-off, which can not only increase the scientificity of the results obtained, It can also greatly reduce the subjective arbitrariness and the possibility of passing through the field. At the same time, the author also believes that in the final performance evaluation results, in order to make the results clear, should be graded. By quantifying the results obtained by different evaluation subjects, we can give the evaluation subjects a specific value according to the different working environment and the importance of the evaluation subjects, weight all the results according to the specific gravity, and finally get the comprehensive results, then we can make the ranking and the combination of rewards and punishments according to the value, so as to increase the learning enthusiasm of the appraisers.

### 4.3.2. Construction of Evaluation Index System

The target is decomposed into concrete, behavioural, measurable and operable sub-goals, which are restricted by the target, and the index system makes the realization of the target possible[7]. The index system is the basis of performance evaluation, and its construction is the core of performance evaluation. In view of the performance evaluation of teachers' vocational education, the design principle should pay attention to the following points: first, the design of the index should be consistent with the learning goal; second, each index in the index system should show the students' learning situation comprehensively; third, the design principle should pay attention to the following points. Each index of the same evaluation subject in the index system should be independent from each other, there is no causal, inclusive, cross-related; Fourth, each index in the index system should be practical measurement or observation, can obtain a clear conclusion; Fifth, the design of the index system should be based on the actual learning task, practical and practical.

In this paper, the evaluation index is divided into three categories, namely, the negative item, the basic item and the accumulative item. If the negative item is a failure, the result of the performance evaluation of the reviewers is a failure. The base item is the general score item, which is not otherwise stated in this article. The accumulative item mainly take into account the number of learning achievements obtained by the participants.

In the author's opinion, the construction of the target system can set the evaluation subject as the first-class evaluation index, and construct the index according to the characteristics of different evaluation subjects, each index can be given the corresponding score.

With the platform of vocational education as the evaluation subject, the evaluation index should be simple and easy to quantify due to the limitation of technology. The second-level evaluation index is whether the course study, the reading notes and the study content are related to the work. The third-level index of curriculum learning is the degree of completion of class, the result of curriculum examination (the negative item), the degree of mastery of the past learning content, among which, the method of judging the degree of completion of class is to show the problem of this class at random after the content of the course and make a reply at a limited time, and to determine the degree of learning by the proportion of completion of the problem, The degree of mastery of past learning content can be determined separately at the end of each class, and the question bank is randomly selected from the questions (including previous courses) that have been done by the reviewers in the past. Reading notes under the jurisdiction of the three-level indicators with the book-related degree, the degree of completion (the negative item) two, among which, and the book-related degree should be examined whether the subject of the review of the content and book-related, relevant, basic, unrelated three, the degree of completion should be determined whether plagiarism, number of words, writing, and so on, the investigation should mainly investigate whether plagiarism, The result is excellent, good, pass, fail four kinds. Whether or not the study content is related to the work can be evaluated comprehensively according to the above-mentioned two indexes, which are relevant, basic and non-relevant..

The main body of the evaluation is the chief officer of the department and the colleagues of the appraised personnel. Because of the subjectivity of the people, the evaluation indexes of this kind are often qualitative indicators, which should be transformed into quantitative ones. The second-level evaluation index includes four parts: work-related degree, study attitude, study content completion degree and study achievement. Among them, with the work correlation degree, the study attitude result is excellent, good, pass, fail four kinds; The study content completion degree can be divided into three grade evaluation index, the self-study content completion degree and the superior sends the study content completion degree (the negative item) two pieces, the result takes the excellent, good, pass, fail

four pieces; The study achievement takes the appraisal personnel to win the item, the certificate and so on the content to carry on the accumulative calculation.

Taking the subject as the evaluation subject, because most people are easy to overestimate themselves, the author thinks that we can take two ways to evaluate, one is to set up the self-evaluation question bank, refer to the psychology theory, analyze and obtain the evaluation result with a large number of topic results, the other is to reduce the proportion of the subject in the comprehensive evaluation, and polarize the output result of most of the indexes, That is to say, there are only two results, yes or no. The first approach is often more objective and scientific, but the cost of evaluation is too high, and the second approach is simple but low-cost. The secondary evaluation index can be set to whether the work-related, whether to complete the learning task.

With the third-party evaluation as the evaluation subject, the evaluation subject should wait for the results of other assessment subjects to be obtained, and combine the existing results to analyze and synthesize the assessment results, and evaluate the assessment results according to the comprehensive situation, so the evaluation subject should employ the relevant experts as far as possible.

### 4.3.3. Quantitative Calculation of The Accumulative Item

In order to motivate the participants to learn, under the premise of setting the upper limit of evaluation achievement, the author thinks that a function can be set up to evaluate the score and quantity of learning achievement:

$$y = b - b \cdot a^{-x}$$

$y$ represents the assessed achievement score of the assessed person.

$x$ represents the number of learning achievements made by the appraiser.In order to highlight the importance of certain achievements, such as national awards and provincial awards, assuming a provincial and ministerial awards$x$ value of 1, then a national awards $x$ value can be set to 5, and finally the appraiser $x$ value for all achievements summation.

$b$represents the highest score awarded for academic achievement.

$a$ representative parameter.If the value of $a$ should be greater than 1, the larger the value of $a$, the faster the function approaches $b$, the more reasonable the degree of excitation and the size of $b$.

Combined with the function, we can see that the function is a monotone increasing function in the $x > 0$ interval. the larger the $x$, the more $y$ tends to $b$, the maximum given by the learning achievement indicator, which not only promotes the enthusiasm of the participants, but also reduces the number of people who focus only on the results.

## 5. Conclusion

The purpose of this paper is to improve the enthusiasm of teachers to complete vocational education, so as to improve the quality of teachers' ability and further promote the improvement of students' ability. This paper innovates the performance evaluation model of teachers' vocational education to a certain extent, which has some research significance.

## References

[1] Jianqiang Lu, Yanli Xu. Analysis of Skills Shortage and Governance Framework in the Background of Industrial Upgrade [J]. Education Economy, 2021.01.
[2] Cambell J P, Meeloy R A, Oppler S H ,sager C E A. Theory of performance. Personnel Selection in Organizations [C].San Francisco: Josey-Bass:1993:35-70.
[3] By Henry Fayol, Ligeng Chi, Xuan Zhang's Translation. Industrial Management and General Management [M]. Beijing: Mechanical Enterprise Press, 2007.7.
[4] Yanmin Chen. Several problems that must be dealt with in the performance evaluation of college teachers from traditional assessment to performance evaluation [J]. Journal of Quanzhou Normal University, 2006.09.
[5] Richard Williams. Organizational Performance Management [M]. Beijing, Tsinghua University Press, 2002.80.
[6] Yue Zhuo. The Subject Construction of Public Sector Performance Evaluation [J]. China Administration. 2004.05.
[7] Fuxian Gu. Research on Performance Evaluation Index System of Local Government [J]. Journal of Luoyang University, 2006.12.