

Multi-dimensional evaluation method of art teaching quality based on analytic hierarchy process

Honggang Zong^{1,✉}

¹ Normal College of Jimei University, Xiamen, 361021, China

ABSTRACT

In order to optimize the evaluation of art teaching quality under the environment of art value integration and professional development community, a multi-dimensional evaluation method of art teaching quality under the environment of art value integration and professional development community is proposed based on AHP. Establish a hierarchical analysis model of the characteristic distribution of art teaching quality under the environment promoted by art value integration and professional development community, analyze the quantitative characteristics of the hierarchical constraint indicators of art teaching quality under the environment promoted by art value integration and professional development community, obtain the quantitative table of the state distribution of constraint indicators of art teaching quality evaluation, formulate the evaluation scale, and construct the cluster model parameters of multidimensional evaluation of art teaching quality by adopting the analytic hierarchy process structure. Through the analysis of quantitative index characteristics of art teaching quality evaluation, the optimization design of teaching activities and teaching methods for art teaching quality evaluation is realized by using the big data evolution cluster analysis method. In the multi-dimensional hierarchical structure parameter model, the parameter configuration of teaching quality indicators is realized, and the evaluation characteristic index fusion clustering processing is carried out on the parameter configuration results, so as to form the classification prediction and index analysis model of art teaching quality. According to the hierarchical distribution density and grid clustering of art teaching quality indicators, the art value integration and professional development community promotion environment can realize the art teaching quality evaluation. The empirical analysis results show that the quantitative analysis ability of art teaching quality evaluation with this method is strong, and the evaluation results are accurate and reliable, which improves the reliability and confidence level of art teaching quality evaluation under the environment of art value integration and professional development community.

Keywords: artistic value integration, Professional development community, Art teaching quality, Multidimensional evaluation, level analysis

✉ Corresponding author.

E-mail address: abcart@163.com (H. Zong).

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1. Introduction

Under the environment of art value integration and professional development community, the classroom quality evaluation of art teaching, especially the effective evaluation of the classroom, needs to be an important benchmark for the evaluation of quality education reform, and it is also one of the important teaching contents in the new curriculum reform[1-2]. In the Outline of Basic Education Reform, it is mentioned that it is necessary to pay too much attention to the selection and selection of educators in traditional education evaluation, and actively attach importance to the quality development of students. Teachers should also devote themselves to improving the practicality of teaching. The purpose of the vigorous development of classroom evaluation is mainly to collect students' basic information, and to change the content and form of classroom quality teaching in art teaching based on this[3-4]. Therefore, the effective evaluation is of great significance to teaching activities, and it will also make the whole educational model more systematic and contribute to the development of students' quality education.

In the traditional sense, the evaluation mode in art class has no role in inspiring and guiding students, and what's more, it has evolved into a roadblock in the reform of quality education[5]. Therefore, the reform of art teaching in universities has become an inevitable trend, and a series of problems, such as how to evaluate the mechanism to meet the requirements of education reform, need educators' deep reflection[6].

An effective evaluation system of art teaching can help students stimulate their interest in art more fully, build their self-confidence in the subject, and get satisfaction in their study. It is conducive to clear positioning of students and effective communication between classmates, and it is also helpful for teachers to get more intuitive feedback information in their own teaching, and further improve their own teaching system. Students can evaluate others and make self-comments, which is more helpful to achieve a reflective learning style and contribute to future development[7-8]. The research on teaching evaluation of college art classroom can be carried out from the teaching attitude and teaching strategies displayed by teachers in the classroom, and these evaluations can directly promote the progress of classroom teaching[9-10]. Specifically presented in the following aspects: First, it can provide a certain evaluation basis for the professional development of college art teachers. Teachers' professional development is influenced by many factors, many of which are unclear. At the same time, different people have different understandings, so it is even more difficult to determine the specific values of the factors by statistical methods. Therefore, this topic organically combines the qualitative research method with the quantitative research method, and incorporates it into the new field of classroom teaching evaluation, so that teachers can have a certain basis when evaluating their own art classroom and improve their teaching level. Secondly, it can arouse students' enthusiasm for art and feel art, and make students' artistic accomplishment develop continuously. In the reform of college students' art classroom education mode, it is put forward that interesting links should be added in the design and practice of art classroom teaching mode, which can effectively cultivate children's love for art, develop their appreciation ability and expressive force of art, and then improve their appreciation level of art and cultivate their elegant sentiment in the future[11-12]. Based on the study of classroom teaching evaluation, this goal can be better achieved. Third, it can provide some basis for the relevant decision-making of education departments and schools. In order to provide some decision-making ideas, it can really promote college art classroom teaching and effectively improve the quality of classroom teaching[13-14].

Build an analysis model of art teaching quality under the environment promoted by art value integration and professional development community, combine with the configuration method of art teaching material system, conduct multi-dimensional evaluation of art teaching quality under the environment promoted by art value integration and professional development community, improve

art teaching quality under the environment promoted by art value integration and professional development community, and study the multi-dimensional evaluation model of art teaching quality under the environment promoted by art value integration and professional development community. It is necessary to analyze the parameters of art teaching quality under the environment of art value integration and professional development community, build a characteristic information sampling model for multi-dimensional evaluation of art teaching online under the environment of art value integration and professional development community, and combine the reliability control and risk multi-dimensional evaluation results of art teaching online process under the environment of art value integration and professional development community, so as to make art teaching quality evaluation and decision-making[15].

This paper puts forward an evaluation method of art teaching quality under the environment of art value integration and professional development community promotion based on analytic hierarchy process. Firstly, a hierarchical structural analysis model of art teaching quality characteristics distribution under the environment promoted by art value integration and professional development community is established, and the parameters of teaching quality indicators are configured in the multi-dimensional hierarchical structural parameter model, and the results of parameter configuration are processed by evaluation feature index fusion clustering. Then, a classification prediction and index analysis model of art teaching quality under the environment promoted by art value integration and professional development community is constructed, and the art teaching quality evaluation under the environment promoted by art value integration and professional development community is realized according to the hierarchical distribution density and grid clustering of art teaching quality indicators. Finally, the simulation test shows the superior performance of this method in improving the ability of art teaching quality evaluation under the environment of art value integration and professional development community promotion.

2. Parameter indexes and model objects of teaching quality evaluation

2.1. Teaching quality evaluation parameters and indicators

In art classroom teaching, first of all, teaching evaluation should actively promote the whole teaching progress, and also pay attention to individual differences. The whole evaluation needs to recognize students' all-round quality development and creativity cultivation, and the teaching evaluation needs to further promote teachers and students, which is the common progress of the cultural system [16-17]. The evaluation mode needs multi-dimensional and flexible evaluation according to the actual situation, and it also needs to pay attention to students' emotional changes, values orientation and learning attitude. Therefore, the teaching evaluation of art class can be called a formative evaluation. The whole evaluation reflects not only the mastery of knowledge and skills, but also the evaluation of artistic learning and appreciation ability. A perfect classroom evaluation model can effectively promote classroom teaching. Carry out big data sampling of art teaching quality under the environment of art value integration and professional development community, initialize the clustering center $F(x_i, A_j(L))$, $i=1,2,\dots,m$, $j=1,2,\dots,k$ of multi-dimensional evaluation and classification of art teaching quality under the environment of art value integration and professional development community, and extract the characteristic quantity of art teaching quality evaluation under the environment of art value integration and professional development community. Establish a big data analysis model of art teaching quality under the environment of art value integration and professional development community, and use quantitative regression analysis [18-19] to get the distribution structure of art teaching quality evaluation under the environment of art value integration and professional development community. The network structure model of quality evaluation is shown in Figure 1.

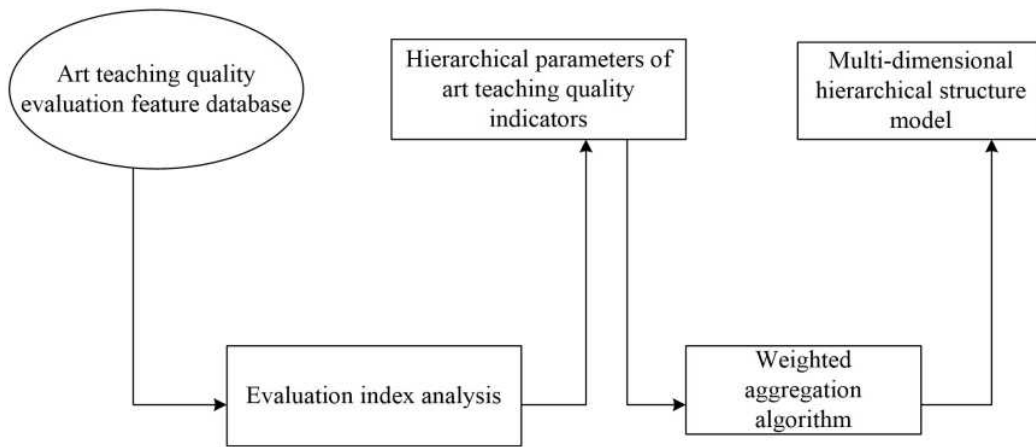


Fig. 1. Model structure model of art teaching quality evaluation

$$G_{k+1} = P_{k+1|k}^{xz} \left(P_{k+1|k}^z \right)^{-1} \quad (1)$$

Wherein, $P_{k+1|k}^{xz}$ is the optimization function of artistic value integration, and the statistical distribution set of multi-dimensional evaluation of art teaching quality under the environment of artistic value integration and professional development community is constructed by using quantitative regression analysis method. The error covariance characteristic distribution of calculating artistic value integration is:

$$P_{k+1|k+1} = P_{k+1|k} - G_{k+1} P_{k+1|k}^z G_{k+1}^T \quad (2)$$

Wherein, G_{k+1} is the decision-making coefficient of multi-dimensional evaluation of art teaching quality, and G_{k+1}^T is set as the measurement feature set of multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community. The statistical vector dimensions of multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community are analyzed, and the state correction is carried out by using the correction function, and the fuzzy adjustment factor of multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community is obtained, namely

$$\varphi_k = L^{-1} \sum_{j=k-L+1}^k \tilde{z}_j \tilde{z}_j^T - \left(P_{k+1|k}^z + R_k \right) \quad (3)$$

Wherein, L is the multi-dimensional fuzzy coefficient of art teaching quality, R_k is the multi-dimensional association rule coefficient of art teaching quality, and $\tilde{z}_j$ is the dynamic decision-making index of quality evaluation. Then the evaluation statistical characteristics of φ_k obey the n_z distribution with the degree of freedom as, and the values of S and S are different at different times. The descriptive statistical feature distribution evaluation set of multi-dimensional evaluation of art teaching quality under the environment of art integration and professional development community is S , and $\{v_1, \dots, v_M\}$ represents the fuzzy set of evaluation. Based on the distributed extraction method of feature factors of art teaching quality, the constraint quality parameters of art [20].

2.2. Art teaching quality evaluation model object

The quantitative characteristics of art teaching quality under the environment of art value integration and professional development community are analyzed, and the evaluation methods and scales of art teaching quality under the environment of art value integration and professional

development community are obtained. The state estimates $\hat{q}_{k+1}, \hat{Q}_{k+1}, \hat{r}_{k+1}$ and $\hat{R}_{k+1}$ of multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community are obtained, which are described as follows:

$$\hat{r}_{k+1} = (1 - d_k) \hat{r}_k + d_k \left[z_{k+1} - m^{-1} \sum_{i=1}^m h_{k+1} (X_{i,k+1|k}, u_{k+1}) \right] \quad (4)$$

$$\hat{R}_{k+1} = (1 - d_k) \hat{R}_k + d_k \left[\tilde{z}_{k+1} \tilde{z}_{k+1}^T - m^{-1} \sum_{i=1}^m (Z_{i,k+1|k}^* - \hat{z}_{k+1|k}) (Z_{i,k+1|k}^* - \hat{z}_{k+1|k})^T \right] \quad (5)$$

Wherein, d_k is the correlation factor between artistic value integration and professional development, h_{k+1} is the matching degree, z_{k+1} is the fuzziness of quantitative feature distribution of art teaching quality under the environment of artistic value integration and professional development community, u_{k+1} is the autocorrelation matching set of various quality development and creativity cultivation, $\hat{R}_k$ is the cross-correlation matching set of artistic learning and appreciation ability distribution, and $\tilde{z}_{k+1} \tilde{z}_{k+1}^T$ is the unbiased estimation. According to the theory of unbiased estimation, the self-adaptive optimization control of quantitative evaluation of art teaching quality is carried out under the environment of artistic value integration and professional development community promotion [21-22].

The preference factor of art teaching quality under the environment of art value integration and professional development community promotion is introduced, and the correlation coefficient between art value integration and art teaching quality evaluation under the environment of professional development community promotion is set $\rho \in [0, 1]$. According to the similar feature matching of art value integration and art teaching quality evaluation under the environment of professional development community promotion, the semantic feature matching function of art teaching online teaching under the environment of art value integration and professional development community promotion is established, and the optimized value is:

$$Opti = \sum_{k=1}^m \alpha_i^{-1} \alpha_k t_{i,k} \alpha_k^{-1} \alpha_j t_{k,j} = \sum_{k=1}^m t_{i,k} t_{k,j} = \begin{cases} 1 & i = j \\ 0 & i \neq j \end{cases} \quad (6)$$

Wherein, α_k is the semantic alignment binary feature group of online teaching information of art teaching courses under the environment of artistic value integration and professional development community, and α_j is the fuzzy correction vector of online teaching information of art teaching courses under the environment of artistic value integration and professional development community, which is a structural parameter. Therefore, the object model of art teaching quality evaluation under the environment of artistic value integration and professional development community is established, and the quality level of online education of art courses is improved by identifying the object model parameters.

3. Optimization of teaching quality evaluation model

3.1. Cluster analysis of teaching quality evaluation based on AHP

This paper analyzes the quantitative characteristics of the hierarchical constraint indicators of art teaching quality under the environment of art value integration and professional development community, obtains the quantitative table of the state distribution of constraint indicators of art teaching quality evaluation, formulates the evaluation scale, adopts the analytic hierarchy process structure to construct the clustering model parameters of multi-dimensional evaluation of art teaching quality, and analyzes the characteristics of the quantitative indicators of art teaching quality evaluation. The analytic hierarchy process (AHP) structure is adopted to construct the cluster model parameters of multi-dimensional evaluation of art teaching quality. Through the

analysis of the quantitative index characteristics of art teaching quality evaluation under the environment of art value integration and professional development community, the formula for calculating the internal consistency reliability coefficient of art teaching online teaching under the environment of art value integration and professional development community is as follows:

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum_{i=1}^k S_i^2}{S^2} \right) \quad (7)$$

Wherein, k represents the number of questions in the questionnaire of art teaching quality evaluation, S_i represents the variance of the score of the first S question, and K represents the variance of the total score of the questionnaire of art teaching quality evaluation. After calculation, the reliability coefficient α is 0.864, which indicates that the questionnaire of art teaching quality evaluation has high reliability and internal consistency, and its data can be used in this research.

The analytic hierarchy process (AHP) algorithm is used to construct the test samples $\{s_1, s_2, \dots, s_n\}$ and Q of online teaching evaluation of art teaching courses under the environment of artistic value integration and professional development community. They are composed of related events of art teaching quality evaluation, with the contribution rates of eigenvalue and cumulative variance of $P_q(q_j)$ and composed of data events of art teaching quality evaluation questionnaire. The factors with accumulated variance contribution rate above 60% can be extracted. At this time, the average mutual information of art teaching quality distribution under the environment of art value integration and professional development community promotion is expressed as follows:

$$H(S) = -\sum_{i=1}^n P_s(s_i) \log_2 P_s(s_i) \quad (8)$$

$$H(Q) = -\sum_{j=1}^n P_q(q_j) \log_2 P_q(q_j) \quad (9)$$

Wherein, $P_s(S_i)$ indicates the reliability distribution probability of art teaching quality evaluation that the sample events of art teaching curriculum quality occur in the region under the environment of art value integration and professional development community, and $P_q(q_j)$ indicates the probability of art teaching curriculum quality events q_i occurring in the region Q under the environment of art value integration and professional development community.

Under the assumption of S , the number of factors whose cumulative variance contribution rate is more than 60% is obtained. The fuzzy parameter information of art teaching quality evaluation in Q represents the mutual information of the system and, and the hierarchical structure model parameters of art teaching quality evaluation are:

$$I(Q, S) = H(Q) - H(Q|S) \quad (10)$$

Wherein

$$H(Q|S_i) = -\sum_j \left[\frac{P_{sq}(s_i, q_j)}{P_s(s_i)} \right] \log_2 \left[\frac{P_{sq}(s_i, q_j)}{P_s(s_i)} \right] \quad (11)$$

Then

$$I(Q, S) = \sum_i \sum_j P_{sq}(s_i, q_j) \log_2 \left[\frac{P_{sq}(s_i, q_j)}{P_s(s_i)} \right] \quad (12)$$

Wherein, $P_{sq}(s_i, q_j)$ represents the joint distribution probability of the distribution weight coefficient of the evaluation index of art teaching quality in sum. Establish a hierarchical structure model, construct the judgment matrix of students' emotional changes, values orientation and learning attitude, and establish an ecosystem of multi-dimensional integration of classroom design, teaching evaluation, etc., and get the weight of evaluation indicators.

3.2. Test of online teaching evaluation model of art course

Through qualitative and quantitative methods, this paper determines the distribution index system of art teaching quality and the weight coefficient of each index under the environment promoted by art value integration and professional development community, and finds out the factors that restrict art teaching quality under the environment promoted by art value integration and professional development community by case analysis, which provides a scientific basis for the strategy of art teaching quality improvement under the environment promoted by art value integration and professional development community. For the collected questionnaires, the average score of each index is calculated. According to the evaluation weight of each index, the score of each index is comprehensively analyzed, and the quality of art teaching under the environment of artistic value integration and professional development community promotion is obtained. Seven indexes with serious score loss can be obtained. The evaluation of art classroom teaching is helpful to optimize classroom teaching, so as to truly build an "ecological classroom". The so-called "ecology" means that living things need to be developed and survive under suitable conditions. The living things in the ecological classroom can actually refer to teachers as well as students. Certain conditions refer to the learning atmosphere and classroom atmosphere created by teachers through a series of classroom designs, so ecological classroom is an ecological system that integrates teachers, classmates, teaching content, classroom design, teaching evaluation and so on. This kind of ecological classroom can form a stable, sustainable and harmonious classroom mode, and it is also a classroom form that conforms to the progress of the times and the characteristics of students. This kind of ecological classroom, as a dynamic model system of information communication and activities between teachers and students, can make teachers and students grow and prosper gradually under the favorable conditions of harmony and common prosperity. Based on the existing situation in the school and the specific characteristics of teachers and students, we should establish a more suitable ecological classroom. The main purpose of this class is to embody the people-oriented teaching principle and policy, and to enable teachers and students to have more independent rights in the class, so as to obtain better development opportunities.

Based on the method of knowledge ontology model construction, the autocorrelation matching of online teaching information of art teaching courses under the environment of art value integration and professional development community promotion is carried out by using evaluation characteristic index fusion clustering and scoring, and the ambiguity function of art teaching information under the environment of art value integration and professional development community promotion is expressed as follows:

$$W_k(U) = g \left(\frac{1}{M} \sum_{i=1}^M \frac{\sum_{j \in Item_i} r_{i,j,c_k}}{\sum_{j \in Item_i} s \times r_{i,j} + O} \right) \quad (13)$$

$$W_k(V) = g \left(\frac{1}{M} \sum_{i=1}^N \frac{\sum_{j \in User_i} r_{i,j,c_k}}{\sum_{j \in User_i} s \times r_{i,j} + O} \right) \quad (14)$$

Wherein, g is the quality parameter of art teaching course under the environment of art value integration and professional development community, M is the semantic dynamic component randomly added, $\sum_{j \in Item_i} r_{i,j,c_k}$ is the source feature distribution set, s is the structural parameter of art teaching quality distribution under the environment of art value integration and professional development community, O is the structural parameter of art teaching course evaluation under the environment of art value integration and professional development community, and $\hat{r}_{i,j}$ is the dynamic distribution set.

Using the analytic hierarchy process algorithm, the fuzzy characteristic solution of online teaching information of art teaching courses under the environment of artistic value integration and professional development community is obtained as follows:

$$\begin{aligned} P(U | \alpha_U) &= \prod_{i=1}^M N(U_i | 0, \alpha_U^{-1} I) \\ P(V | \alpha_V) &= \prod_{j=1}^N N(V_j | 0, \alpha_V^{-1} I) \end{aligned} \quad (15)$$

Wherein, U, V is the evaluation of embedded relationship process. According to the above analysis, the online generation model of art teaching course under the environment of artistic value integration and professional development community is established, and the quantitative characteristics of art teaching quality under the environment of artistic value integration and professional development community are analyzed. Therefore, the evaluation of art teaching quality under the environment of artistic value integration and professional development community promotion can be realized.

4. Simulation test

In order to test the application performance of this method in art teaching quality evaluation under the environment of art value integration and professional development community promotion, an experimental test analysis was conducted. Matlab Simulink information simulation analysis was adopted in the experiment, and the multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community promotion was conducted under the grid-connected mode, with the deviation limit of -12~-8% and the load of 200. The reliability distribution coefficient of online teaching of art teaching courses under the environment of artistic value integration and professional development community is 0.3, and the sampling interval of multidimensional evaluation of art teaching quality under the environment of artistic value integration and professional development community is set at 0.68s See Table 1 for the distribution of correlation coefficient of multidimensional evaluation. Characteristic distribution quantity of art teaching quality evaluation is shown in Table 2.

Table 1. Correlation coefficient distribution of multidimensional evaluation of art teaching quality

Coefficient Correlation	x_1	x_2	x_3	x_4	x_5	x_6
x_1	0.472	0.298	0.594	0.0251	0.124	0.347
x_2	0.243	0.072	0.967	0.6505	0.793	0.302
x_3	0.448	0.345	0.733	0.4700	0.861	0.304
x_4	0.435	0.097	0.371	0.9184	0.765	0.161
x_5	0.318	0.958	0.607	0.5307	0.709	0.156
x_6	0.610	0.650	0.912	0.4100	0.884	0.447

Table 2. Characteristic distribution quantity of art teaching quality evaluation

Evaluation object	Quality evaluation rate	Expressive factors	Incidence degree
Classroom design	0.129	0.371	0.021
Classroom atmosphere	0.713	0.063	0.705
Ecological classroom	0.340	0.218	0.092
Process type	0.322	0.438	0.516
connoisseurship	0.346	0.811	0.339
Teaching media	0.913	0.271	0.336
Cooperation and exchange	0.501	0.383	0.121
Learning habits	0.669	0.168	0.680
Resultant component	0.835	0.695	0.193
artistic value	0.112	0.734	0.573
Art charm	0.758	0.213	0.931
Students' potential stimulation	0.821	0.849	0.006

According to the above-mentioned correlation coefficient calculation results of multi-dimensional evaluation of art teaching quality under the environment promoted by art value integration and professional development community, the multi-dimensional evaluation of art teaching quality under the environment promoted by art value integration and professional development community is carried out, and the contribution distribution results of multi-dimensional evaluation are shown in Figure 2.

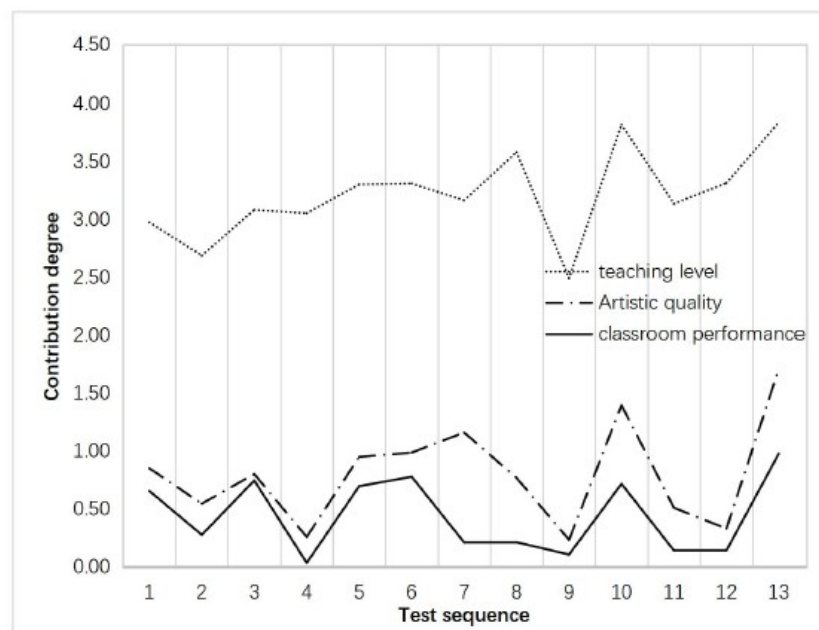


Fig. 2. Contribution distribution results of multi-dimensional evaluation

According to the test results in Figure 2, the multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community promotion is carried out, and the convergence value of analytic hierarchy process of the evaluation is shown in Figure 3.

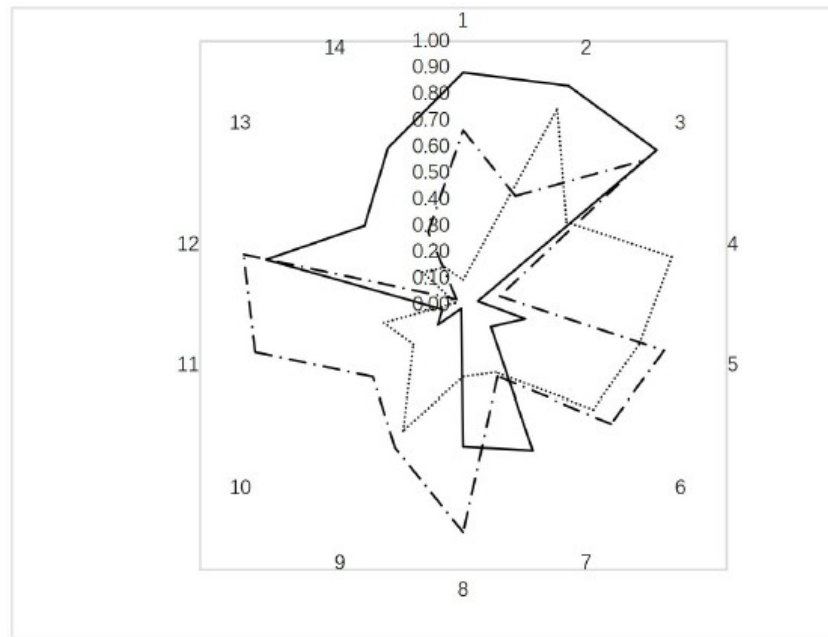


Fig. 3. Convergence value of hierarchical structure analysis of art teaching quality evaluation

Figure 3 shows that teachers play a decisive role in the quality of classroom teaching. If a teacher is excellent, he will not only become a good teacher for students, but also appear in front of them as a good friend, and learn from each other and grow together. Students are the main body of learning, and the teaching effect is determined by teachers' teaching ability, quality and level. Therefore, middle school students in Zhanggong attach great importance to teachers' performance and regard it as the focus of classroom evaluation. There are many similarities in content between the classroom observation and evaluation form of teachers and students, but there are still differences after comparison. The classroom observation and evaluation form is aimed at students, and the dividing standard is two sections before and after class. Classroom observation and evaluation form is aimed at teachers, and it is divided into two sections, namely, paying attention to students and paying attention to the classroom. The basic requirements of teachers' teaching ability listed in the table are comprehensive.

The convergence of multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community is good, and the accuracy of the evaluation is tested. The comparison results are shown in Figure 4. After analyzing Figure 4, it is known that the accuracy of multi-dimensional evaluation of art teaching quality under the environment of art value integration and professional development community is high.

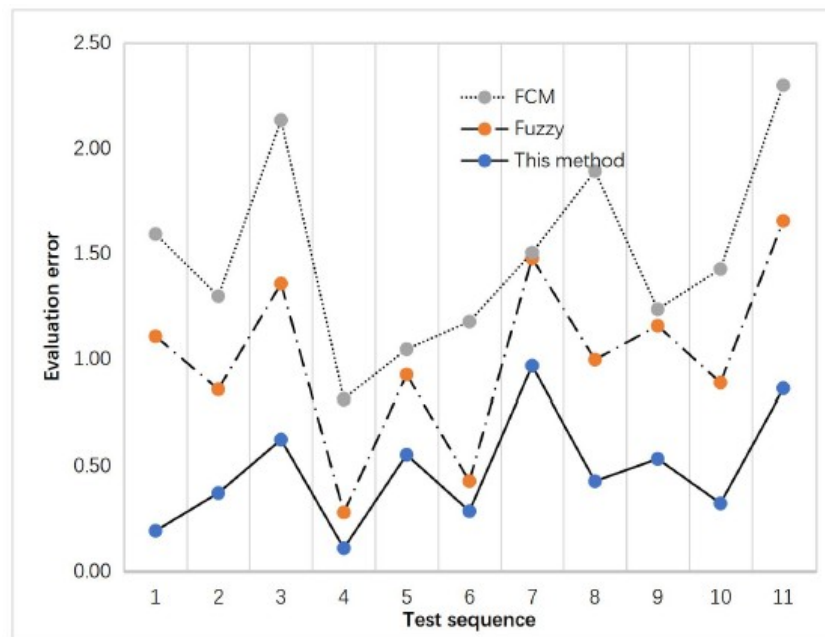


Fig. 4. Multi-dimensional evaluation performance comparison results

5. Conclusions

In this paper, the evaluation method of art teaching quality under the environment of art value integration and professional development community based on analytic hierarchy process is put forward. This paper establishes a hierarchical analysis model of art teaching quality characteristics distribution under the environment of art value integration and professional development community, makes quantitative analysis of art teaching quality under the environment of art value integration and professional development community, and obtains the evaluation method and scale of art teaching quality under the environment of art value integration and professional development community, and adopts the analytic hierarchy process structure to construct the clustering model parameters of multi-dimensional evaluation of art teaching quality. By analyzing the quantitative index characteristics of art teaching quality evaluation under the environment of art value integration and professional development community, and adopting the big data evolution cluster analysis method, the optimization design of teaching activities and teaching methods for art teaching quality evaluation under the environment of art value integration and professional development community is realized. The parameter configuration results are subjected to evaluation feature index fusion clustering processing, which constitutes a classification prediction and index analysis model of art teaching quality under the environment promoted by art value integration and professional development community. According to the hierarchical distribution density and grid clustering of art teaching quality indicators, art teaching quality evaluation under the environment promoted by art value integration and professional development community can be realized. The analysis shows that this method has a strong ability to analyze the quantitative characteristics of art teaching quality evaluation under the environment of art value integration and professional development community, and the evaluation results are accurate and reliable. It improves the reliability of art teaching quality evaluation under the environment of art value integration and professional development community, and has a good application value in the improvement of art classroom teaching.

The establishment, implementation and improvement of the evaluation mechanism of school art teaching quality play a vital role in the personal growth of young teachers. The continuous improvement of the evaluation mechanism of classroom teaching quality has a direct impact on the

improvement of classroom teaching quality, and students will be the direct beneficiaries of the teaching reform. The teaching idea of "student-oriented" in art teaching quality evaluation coincides with mine. From the perspective of parents and schools, the synchronous growth and progress of teachers and students is the result of classroom evaluation mechanism, which is a gratifying change. The reason why the author conducts in-depth research, with the help of Zhanggong Middle School as a platform, gathers teachers, students, parents and schools, sets the same goal, and strives for the construction and improvement of the evaluation mechanism of classroom teaching quality in middle schools. Although many research plans and assumptions were made at first, too many factors such as people and things involved should be considered. This study focuses on schools and teachers. Only by constructing an effective evaluation mechanism of music classroom teaching quality and ensuring its perfection, can we establish the teaching quality of schools, improve teachers' teaching ability, give fertile ground for students' growth and give parents a source of trust.

Availability of data and material

The data used to support the findings of this study are available from the corresponding author upon request.

Competing interests

Declares that he has no conflict of interest.

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