

Research Article

Evaluation of Talent Training Model Taking into Account the Knowledge Recognition Algorithm of Multiple Constraint Models

Yangjun Jing 

Shangqiu Medical College, Shangqiu 476100, Henan, China

Correspondence should be addressed to Yangjun Jing; 201701015305@stu.zjsru.edu.cn

Received 25 April 2022; Accepted 14 June 2022; Published 3 August 2022

Academic Editor: Xiantao Jiang

Copyright © 2022 Yangjun Jing. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

In the current talent model analysis, the phenomenon occurs such as serious errors, low efficiency, and poor accuracy. Based on this, a talent training model evaluation method is proposed based on multi-constraint model knowledge recognition algorithm. The knowledge recognition algorithm of the multiple constraint model is used to establish a talent training mode evaluation based on the knowledge recognition algorithm of the multiple constraint model, and the mode weight value is used to adjust the connection weights of the knowledge recognition algorithm of the multiple constraint model. The proposed knowledge recognition algorithm of the multiple constraint model is used to analyze the data index weights of the medical professional talent model in detail, to establish the appraisal model of the talent training. The model can effectively complete the evaluation and analysis of the comprehensive ability of medical professional talents. When using the classifier for training, 76% of the data feature dimensions can be selected for dimension reduction, so as to improve the imbalance problem under the training sample. The characteristics of the various constraint models designed in this paper can be tested by using the classifier. Finally, the experimental analysis results show that the application of the knowledge recognition algorithm of the multiple constraint model to the training mode of medical professionals can significantly enhance the accuracy of evaluation. It has certain reference significance in personnel training.

1. Introduction

In order to satisfy the needs of society and the continuous changes in the employment of medical talents, more talent training models have been continuously optimized. Innovations, and practical and ordinary models are interdependent, but the current reforms and explorations are mostly based on social statistics, which are not qualified [1]. After students have completed the relevant courses, the third-party certified professional skills certificates obtained by students through examinations or assessments provide a strong guarantee for students' follow-up internship, employment, and study. Only through studying correlative special course, including actual capacity training, can the students cultivate their own professional practical skills while performing social recognition; when they enter the society, they can get employment in the workplace. The traditional mode of giving a man a fish is changed, to pay

more attention to the cultivation of students' creative ability and original thinking, lay stress on the cultivation of practical operation ability and self-study ability, help students consolidate basic knowledge, improve corresponding teaching mode, strengthen students' practical operation ability, combining the theory with practice, and train students in a more ideal teaching method [2, 3].

In order to improve the accuracy of the overall assessment of the talent model, the time required for the sequencing of the schemes is long, which effectively reduces the error rate of the system evaluation and analysis in this paper. According to the evaluation method of talent training model based on knowledge recognition algorithm of multiple constraint models, during the transformation of the training of computer professionals with multimedia technology, we insist on an overall plan, gradually implement it, and summarize and practice while summarizing for improvement [4, 5].

2. Methods

2.1. Knowledge Recognition Algorithm for Multiple Constraint Models. The nonlinear modeling used in the knowledge recognition algorithm of multiple constraint models mainly uses multiple constraint conditions to improve the stability of the algorithm. The essence of the algorithm is to use multiple classifiers to effectively combine the obtained classifier structures. Through the training of element data samples, the obtained data are fed back to the sample data set. Suppose that the probability of each sample in the training group can be extracted as

$$p = \left(1 - \frac{1}{N}\right)^N. \quad (1)$$

It can be seen from the expression (1) that if N tends to infinity, then the value of p can be obtained as 0.368; that is, about 37% of the samples will not be drawn in the training set D . The process of knowledge recognition algorithm for multiple constraint models is shown in Figure 1.

The constraint model knowledge recognition algorithm used in this paper can optimize the classifier design according to the coverage optimization method in the process of medical talent training and evaluation majoring in medical science, and then can improve the accuracy of constraint model knowledge recognition. During the process of generating the borrowed decision tree, due to the independence of each decision tree, it can be processed in parallel [6], thereby effectively improving the training efficiency of the algorithm.

Step 1. Pick out the sample feature X corresponding to any data, introduce noise data, and perform calculations on the OOB data simultaneously; the obtained calculation results are marked with $errOOB2$, and the calculation result obtained by OOB under the original data is $errOOB1$. If there may be a decision tree in the constraint model, then the characteristic X of the data can be indicated with the following equation:

$$I_X = \frac{\sum_j^N (errOOB2_j - errOOB1_j)}{N}. \quad (2)$$

Step 2. According to the feature, 76% are obtained with the marshaling sequence in the second step, and 20% of them are removed from the feature set.

Step 3. Perform the above two steps once again until the number of features is reduced to the preset value, and finally yield m data feature sets.

2.1.1. F-Measure Weighting Algorithm (FRF). In this paper, the recall and accuracy ACC of the classifier are calculated using the confusion matrix.

Traditional recognition algorithms usually use the average majority voting method when making classification decisions. The algorithm classifies labels at different decision tree markers to achieve the most data output effect. In this paper, we design a new basic deterministic tree weighting

method based on the F -measure method. The confusion matrix is used to calculate the recall rate recall and accuracy ACC of the classifier:

$$\begin{aligned} \text{Recall} &= \frac{TP}{TP + FN}, \\ \text{ACC} &= \frac{(TP + TN)}{TP + FP + FN + TN}. \end{aligned} \quad (3)$$

In the formula, TP actually indicates the number of high-mode graduates expected to be high-mode graduates, and TN actually indicates the number of low-mode graduates expected to be low-mode graduates. FP is actually a high-mode graduate expected by a low-mode graduate, and FN actually indicates a high-mode graduate expected to be a low-mode graduate.

Based on the formula of F -measure calculation, the F -measure value of each decision tree constituting the random forest classifier is calculated.

$$F - \text{measure} = \frac{2 \times \text{recall} \times \text{precision}}{\text{recall} + \text{precision}}. \quad (4)$$

In the above formula, recall indicates the recall rate, and precision represents the precision. Firstly, import the data of the verification set into each decision tree, and each decision tree conducts classification prediction on each record of the verification set and compares the predicted result with the actual outcome of the decision tree.

In the improved knowledge recognition algorithm based on various constraint models, the impact of the average voting system is reduced, and the impact of weak classifiers on the results is weakened, thereby enhancing the performance of the entire algorithm. It has been proved that the algorithm can be used for talent model evaluation and other applications (Figure 2).

2.2. Evaluation Method of Talent Training Model.

Construction of Multiple Constraint Models: As for the evaluation method of talent training mode based on the knowledge recognition algorithm of multiple constraint models, the evaluation criteria are obtained according to the needs and characteristics of the evaluation analysis object, to construct the analysis factor set for the evaluation of the talent training mode.

The evaluation method of talent training model based on multiple constraint model knowledge recognition algorithms is divided into evaluation analysis element group, to obtain the first-level evaluation analysis element group and the second-level evaluation analysis element group. The procedure of first-level evaluation analysis element group U is expressed as follows [7].

$$U = \{U_1, U_2, \dots, U_m\}. \quad (5)$$

The first-level evaluation analysis factor set of the talent training model evaluation is further subdivided, to gain the factor set of the second-level evaluation analysis:

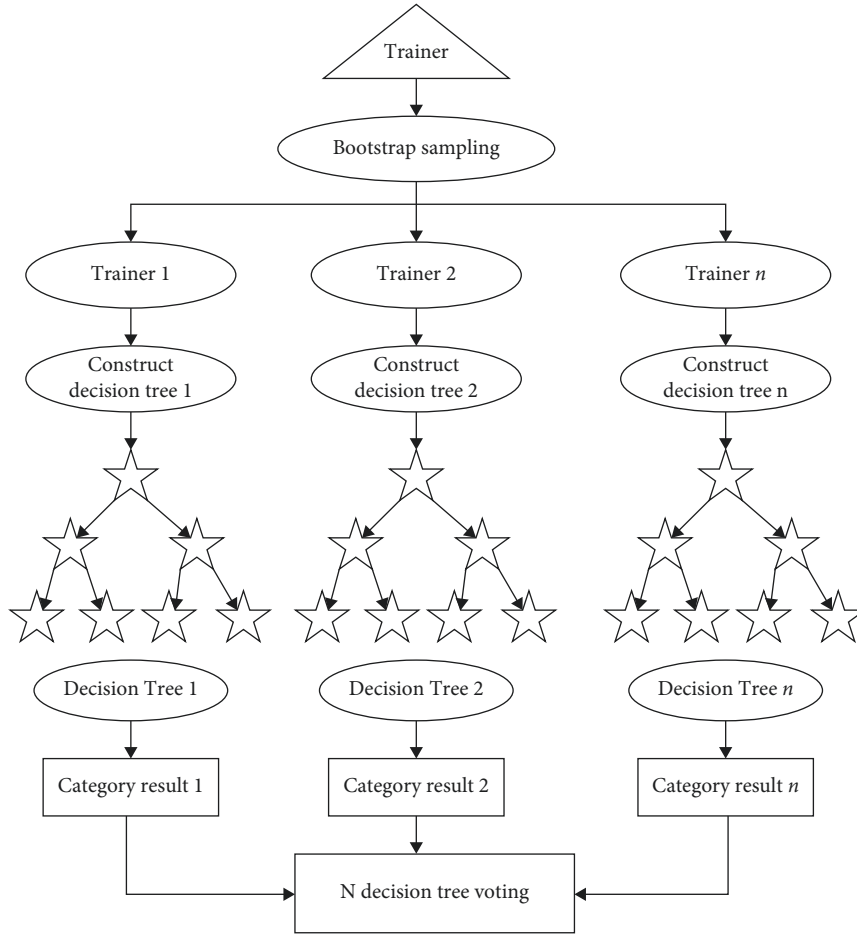


FIGURE 1: Knowledge recognition process of multiple constraint models.

$$\begin{cases} U_1 = \{U_{11}, U_{12}, \dots, U_{1n}\}, \\ U_2 = \{U_{21}, U_{22}, \dots, U_{2n}\}, \\ \vdots, \\ U_m = \{U_{m1}, U_{m2}, \dots, U_{mn}\}. \end{cases} \quad (6)$$

Combining the characteristics of the evaluation elements of each talent training model, a collection of commentaries is established according to the suggestions of experts, the actual situation of talent training model evaluation is analyzed, and the four levels of talent training model are optimized [8].

The evaluation method of talent training model based on various constraint model knowledge recognition algorithms calculates the weight of the evaluation elements of the talent training model through a layered analysis method. According to the top-down principle, various evaluation and analysis elements are divided into multiple levels, and the evaluation and analysis indicators are graded based on various levels and a variety of systems combined with the attributes of the evaluation and analysis objects. The indicators that exist at the same level perform standard quantification processing on the comparison results compared according to the corresponding importance, to gain the

corresponding weights of the evaluation indicators of the talent training model. The specific steps are as follows [9].

Step 1 Compared with the indicators existing in this layer, establish a decision matrix A , whose expression is as follows.

$$A = \begin{bmatrix} a_{11} & a_{12} & \cdots & a_{1n} \\ a_{21} & a_{22} & \cdots & a_{2n} \\ \vdots & \vdots & & \vdots \\ a_{n1} & a_{n2} & \cdots & a_{nn} \end{bmatrix} b_{ij}. \quad (7)$$

$$b_{ij} = \frac{a_{mn}}{\sum_{i=1}^n a_{im}},$$

$$v_{ij} = \sum_{h=1}^n$$

As the weight matching the evaluation indicator of the talent training model w_i , it is calculated in the equation as follows.

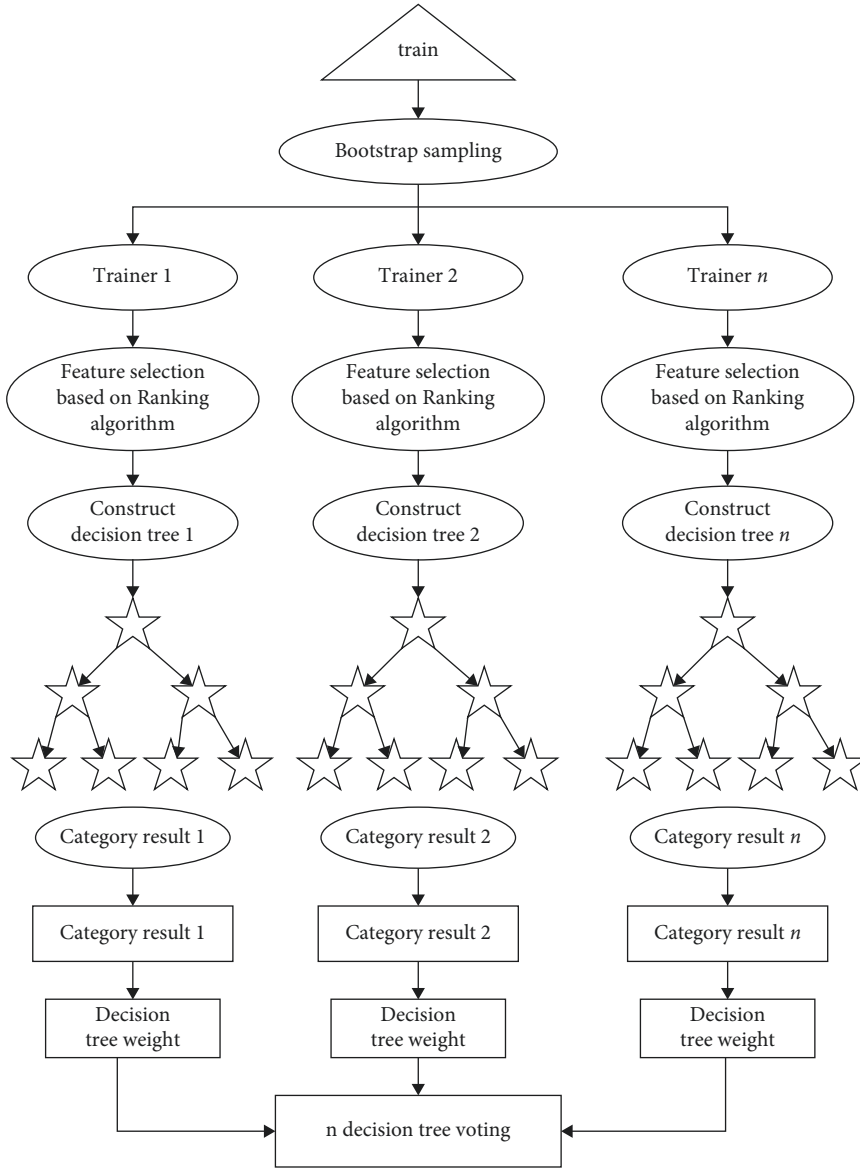


FIGURE 2: Procedure of knowledge recognition algorithm of multiple constraint models.

$$w_i = b_{ij} \cdot \frac{v_i}{\sum_{i=1}^n v_i}. \quad (8)$$

Construct a matrix W of weight vector in accordance with the calculated evaluation indicator weight of the talent training mode.

Step 2 Determine the consistency corresponding to the higher-order decision matrix through consistency checking.

$$U_{mm} = \begin{bmatrix} U_{11}, U_{12}, U_{13}, U_{14}, U_{15} \\ U_{21}, U_{22}, U_{23}, U_{24}, U_{25} \\ \vdots \\ U_{m1}, U_{m2}, U_{m3}, U_{m4}, U_{m5} \end{bmatrix} W. \quad (9)$$

In the formula, U_{ij} is used to express the degree of membership corresponding to the comment set U_j , which evaluates the analysis factor U_i .

According to the calculated degree of membership, the evaluation model F of talent training mode is constructed, and it is expressed as follows:

$$F = \frac{w_i \times U_{mm}}{U_j} \times \delta. \quad (10)$$

2.3. Solution of Multiple Constraint Models. The talent training model evaluation method based on the knowledge recognition algorithm of the multiple constraint model uses the knowledge recognition algorithm of the multiple constraint model to solve the built talent training model

evaluation model and achieves the fuzzy comprehensive evaluation analysis of the talent model.

$\lambda^i, \lambda^{i_2}, \dots, \lambda^{i_r}$ describe the T weight vectors related to the uniformly distributed weight vector λ^i which is the closest.

Initialize the population x^1, x^2, \dots, x^i and set $F(x^i) = 1/\lambda^{i_r} \cdot B(i)$.

Set ξ_1, ξ_2 , and ξ_3 that meet the following conditions in the initial stage:

$$\xi_1 = \xi_2 = \xi_3 = \frac{N}{3}. \quad (11)$$

As far as the evaluation method of talent training model based on multi-constraint model knowledge recognition algorithm is concerned, dynamic subpopulation method is often employed to conduct dynamic cooperative differential evolution [10]:

- (1) Obtain new offspring individuals y^i .
- (2) Replace the benchmark point.
- (3) Calculate the success rate of evolution corresponding to different strategies:

$$\begin{aligned} \tau_1 &= \frac{\kappa_1/\xi_1}{\kappa_1/\xi_1 + \kappa_2/\xi_2 + \kappa_3/\xi_3}, \\ \tau_2 &= \frac{\kappa_2/\xi_2}{\kappa_1/\xi_1 + \kappa_2/\xi_2 + \kappa_3/\xi_3}, \\ \tau_3 &= \frac{\kappa_3/\xi_3}{\kappa_1/\xi_1 + \kappa_2/\xi_2 + \kappa_3/\xi_3}. \end{aligned} \quad (12)$$

- (4) Recalculate the population size:

$$\begin{aligned} \xi_1 &= N \times \tau_1, \\ \xi_2 &= N \times \tau_2, \\ \xi_3 &= N - \xi_1 - \xi_2, \end{aligned} \quad (13)$$

where τ is the evolutionary success rate. Update ξ_1, ξ_2, ξ_3 .

- (5) Set termination conditions $\tau > \tau_{\max}$, stop the algorithm, output the results of the talent training model evaluation model, and execute the analysis of fuzzy comprehensive evaluation of the talent model.

2.4. Talent Training Model Evaluation Process. The method for evaluation and analysis of talent training model is adopted to implement the evaluation and analysis of the talent model. In order to harvest the results of evaluation and analysis, the evaluation and analysis process of the first-level talent training model shall be conducted many times in the evaluation and analysis module of the talent training model. The design method of the talent training model evaluation system is based on multiple constraint model knowledge recognition algorithms [11], and subroutine is designed for replacement of evaluation and analysis process for the first-level talent training model and facilitates the system to call

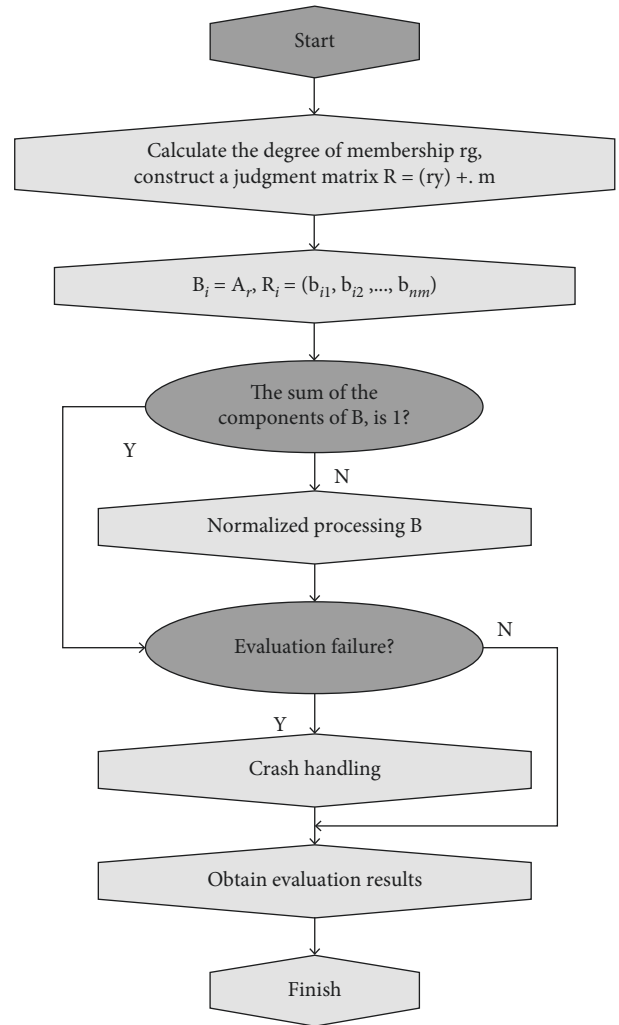


FIGURE 3: Block diagram of evaluation and analysis procedure.

multiple times, just as shown in the block diagram of the program in Figure 3.

A talent training model and a constraint parameter index analysis system for evaluation and analysis are constructed, and a variety of constraint model knowledge recognition algorithms are adopted to analyze the talent training model and evaluate the big data information system. The entropy of the constraint feature information is characterized by the talent teaching scheduling ability, and the extracted value is

$$P_{\text{loss}} = 1 - \frac{1 - p_0}{\rho} = \frac{p_0 + \rho - 1}{\rho} = \sum_{n=1}^N p_{K,n} \quad (14)$$

$$z(t) = x(t) + iy(t) = a(t)e^{i\theta(t)} + n(t).$$

The surrogate data method is employed to randomize the teaching ability of talents, and the experience distribution data of the k -th type of analysis and evaluation of education can also be disturbed, to yield the k -th subgroup, which indicates the utility rate of the distributed talent classroom resources [12].

$$U_{\text{util}} = \gamma \bar{X}. \quad (15)$$

A hierarchical tree is constructed by means of the big data analysis methods.

$$\text{Sim}_1(d_i, d_{1j}) = \frac{\sum_{k=1}^M W_{ik} \times W_{1jk}}{\sqrt{\sum_{k=1}^M W_{ik}^2} \cdot \sqrt{\sum_{k=1}^M W_{1jk}^2}} \quad (16)$$

In the formula, d_i is the characteristic vector of the target distribution and evaluation of the talent training model.

The fusion formula is as follows:

$$P(x|w) = \frac{P(x|w)}{P(x)}. \quad (17)$$

If $(N(i) \bmod L) < m$ is regarded as the quantitative recursive feature, the probability density feature of the distribution of teaching resources is $p(i) = \lfloor N(i)/L \rfloor$, and the talent training model and evaluation big data stream $X(i)$ are divided into $p(i)$ sub-matrix X_{ij} with a size of $N_{ij} \times m$ [13].

Through multi-party research, consultation and summary, in terms of professional talent training, the goal is to cognitive learning-theoretical teaching-classroom training-internship and employment-entrepreneurial innovation, etc. Which is treated as the process chain used for the basic issues of multimedia professional construction and teaching reform Internships, the integration of course content, theory and actual traditional technology, high-tech in professional education is achieved [14]. A talent training model that combines industry, teaching, research, and innovation is realized. Through the innovative reform and design of the multimedia technology professional teaching system, its characteristics mainly run through the integration of industry, employment, occupation, innovation, and entrepreneurship: (1) from the first day when students enter the college, the college arranges teachers to inform the students in each class, and what are their training goals and the corresponding curriculum system? What are the employment prospects? How to match one's own career plan, realize the mode of combining independent learning and teacher's teaching, and continuously improve and progress. (2) The social needs and actual job recruitment requirements are combined, in the actual multimedia talent training, based on the corresponding training and research center, a school-enterprise alliance is jointly established with the surrounding units and industry associations that have multimedia technology needs, to train students. The theory and practice are combined through real cases, training ability in practice, transforming results in exercise, experiencing and participating in research and development throughout the process, and further improving students' practical ability, to achieve the goal of producing the most perfect product among many producers. (3) After learning related courses, students will pass examinations or review to apply for third-party certification of professional skills. It brings a strong guarantee for students' follow-up internship, employment, and study. (4) After studying relevant special courses, including concrete ability training, students can obtain professional concrete

skills on the one hand and simultaneously gain social recognition, enter society, and harvest job employment. (5) Change the traditional mode of giving a man a fish, pay more attention to the education of students' original ability and creative thinking and the cultivation of practical operation ability and self-study ability, help students consolidate basic knowledge culture, improve corresponding teaching mode, strengthen students' practical operation ability, combining the theory with practice, and train students in a more ideal teaching method.

Looking for new breakthroughs and innovations based on past research in China and other countries, it is mainly manifested in that comprehensive management theories and systems are interspersed with the teaching management training model. Campus management is a combination of openness and dynamics. These are the details of the system. In order to avoid conflicts between campus organizations and stimulate the enthusiasm of the staff, it is required to mainly understand the individual, and it also provides a full range of services for staff management. Under the network big data, information-based teaching can perfect the training mode during the teaching process and can also monitor and evaluate the training mode of teaching. Find the appropriate evaluation index, set the preliminary data parameters, and enter the information, so that the monitoring and evaluation methods will gradually tend to paperless.

3. Discussion

Evaluation Indicators of Medical Personnel Training: According to the multiple constraint models, the power of the teaching system is generated from the medical teachers and students in the system. The power of the input system for the teaching and activities of talents majoring in medical science is used usually to facilitate the change of the training mode of talents majoring in medical science, and the measurement of it shall be indirectly conducted by the apparent teaching mode from the external world. In accordance with the explanation of the teaching process between talents and students majoring in medical science, the mode and characteristics of teaching behavior are reflected to appraise the health indicator system of teachers majoring in medical science. The training mode of talents majoring in medical science mainly includes the preparation of teachers as talents majoring in medical science, classroom education for talents majoring in medical science, and the provision of special counselling. The types of student education activities include student learning in classrooms, mutual help between teachers and classmates in the classroom, etc. The measurement of the tutoring characteristics of the international teaching activities of medical professionals can be carried out by the teachers' teaching motivation and teaching time. The characteristics of students' learning patterns can be measured with the help of students' learning enthusiasm and time spent on learning. Teachers' enthusiasm for teaching medical professionals can be used to evaluate teachers'

enthusiasm for teaching activities of medical professionals, as a positive psychological activity in the teaching mode of medical professionals. Besides the two main teaching roles of teachers and students, in the context of modern informatization, the motivation of entering the high-level teacher evaluation system is also the basis for evaluation of the evaluation system in the data informatization context. The previous training of medical professionals required a teaching model of teacher-student linkage. The informatization teaching resources are mainly used to perform the international teaching of medical specialty as the teaching mode of the education system in the modern informatization background.

Organizational Structure Measurement Index of Medical Professional Training Evaluation: As an individual teaching model for teachers and students majoring in medical science, according to the teaching evaluation indicators of medical professionals, the energy of teaching investment should be properly and reasonably distributed in the process of internationalized teaching system. A special teaching mode shall be established to guarantee the smooth and efficient flow of energy, so the teacher evaluation system can bring into play smoothly and effectively. In the context of modern information, the evaluation system of teacher consists of the following components: the interaction among teachers, students, and teaching resources, specific teacher teaching and classroom learning activities, which can probe into students' learning motivation and ensure that in the process of mutual communication, the energy of input system satisfies the characteristics and requirements of the above aspects. This measurement method is suitable for the organizational construction of the international evaluation system of medical specialty and the construction of teaching evaluation indicators. Teachers and students need to consider each other's needs and satisfy each other's high adaptability requirements. Teachers supervise students' learning according to their own teaching activities. Students study hard in order to satisfy the requirements of teachers. They cooperate with each other and learn from each other, so that the way of energy transmission is smoother and the frequency of energy conversions is increased. In general, fitness meets the needs of four aspects: purpose fitness, content fitness, method fitness, and attitude fitness, and then becomes an evaluation system for medical teachers. The purpose, teaching content, and learning attitude of different activities are in line with the teaching and learning level of both parties.

The Resilience of Evaluation of Medical Professional Training: The construction of the flexibility of the medical professional course evaluation system depends on the ability of the teaching evaluation system to play a normal function and continue to operate when it is threatened by the outside world. In terms of maintenance of the normal operation of teaching evaluation,

the evaluation system can play an adjustment role on the whole. In this process, it can strengthen the performance of protective components and reduce the risk factor. Therefore, it is necessary for medical professional teachers to establish a conscious introspection awareness during the teaching process and to correct the possible risk factors in time. The significant factors affecting the evaluation system are as follows: medical professional teachers' teaching fatigue in the teaching process, students' low enthusiasm for learning, and nonreciprocal information environment. The external threat to the teaching organizational structure will cause teachers to feel professional fatigue, and the interaction between students' learning and teachers' teaching, teaching purposes, teaching content, teaching attitudes, and teaching methods cannot meet the actual needs, so it is not suitable for the modern information teaching environment. Therefore, in order to continuously overcome the problems, teachers and students need to have the ability to reflect, find the existing risk factors, and take corresponding measures to eliminate difficulties and achieve success. This will enable teachers and students to effectively use their educational and teaching abilities, respectively, to detect the presence of risk factors. The good state of learning motivation and organizational teaching structure is equivalent to the key protective factors in the classroom evaluation system, and they serve medical professionals to effectively promote the interaction of medical professionals and greatly improve the level of interaction between medical professionals, teachers, and students, to ensure the continuous improvement of students' learning ability.

4. Experimental Simulation and Result Analysis

4.1. Data Source and Data Processing. The experimental data used in this paper are the archived information of a certain university kept in the college, mainly through questionnaire surveys and comprehensive evaluations. The data are mainly related to more than 2,100 graduates from 2008 to 2017. This database contains about 35 fields, a total of more than 80,000 pieces of data. Combined with the effectiveness of the evaluation method of the medical talent training model, data related to the evaluation can be selected to construct a database, as shown in Table 1 [15].

Among them, the 8-year sample data from 2008 to 2015 are used as the original training group, accounting for 80% of the total sample number, and the sample data from 2016 and 2017 are used as the test group.

4.2. The Impact of Feature Selection on Algorithm Performance. This paper upgrades the knowledge recognition algorithm of the multi-constraint model twice. To verify whether these two upgrades have a positive impact on the evaluation results, this paper verifies the two upgrades separately to demonstrate the utility and effect of each upgrade. In order to verify whether feature selection will

TABLE 1: Field information contained in the processed data.

Student number	Name	Gender	Major	Specialty technological capability
Innovation and entrepreneurship ability	Knowledge learning ability	Management practice ability	Comprehensive development ability	Sustainable development ability
Employment service satisfaction	Job satisfaction	Teaching satisfaction	Job relevance	Employment satisfaction

enhance the performance of the algorithm, this paper compares various constrained model knowledge recognition algorithms without feature importance weighting with feature importance weighting algorithms, and the results are as shown in Table 2.

Starting from Table 2, the accuracy of various constraint model knowledge recognition algorithms with feature importance weighting for evaluating the quality of medical professionals is significantly higher than the original algorithm in the same data set. In the feature selection process, the improved algorithm automatically selects the features that are beneficial to the evaluation results of medical professionals. It can be seen that the accuracy of the evaluation model will be indirectly improved by reducing the generation probability of weak classifiers.

4.2.1. The Influence of F-Measure Weighting Algorithm on Algorithm Performance. In order to certify the impact of the F -measure weighting algorithm on the actual effect of the algorithm, the comparison of a variety of constraint model knowledge recognition algorithms with a general voting mechanism and a variety of constraint model knowledge recognition algorithms (WRF) with the F -measure weighted voting mechanism is conducted, just as shown in the results of Table 3.

Table 3 shows that the accuracy of the knowledge recognition algorithm model of various constraint models through the weighted voting mechanism is further improved. Various constraint model knowledge recognition algorithms based on the F -measure weighted voting mechanism proposed in this paper have higher performance than traditional various constraint model knowledge recognition algorithms.

In order to certify the overall effect of the design method of the medical professional personnel training model evaluation system based on the constraint model knowledge recognition algorithm, the design method of the medical professional personnel training model evaluation system based on the constraint model knowledge recognition algorithm was tested, involving the design method of medical professional personnel training model evaluation system based on proof inference and the design method of medical professional personnel training model evaluation system based on Hall 3D structural model. The comparison of the evaluation analysis time of the three design method systems is conducted, and the test results can be seen in Figure 4.

Through analyzing Table 1, the result shows that when the system designed by using the design method of the medical talent training model evaluation system based on

TABLE 2: The impact of the feature importance method on the performance of the knowledge recognition algorithm for multiple constraint models.

Algorithms	ACC (%)	Recall	F -measure	ROC area
RF	92.67	0.629	0.698	0.851
WRF	93.87	0.636	0.678	0.841

TABLE 3: The influence of F -measure weighting algorithm on algorithm performance.

Algorithms	ACC (%)	Recall	F -measure	ROC area
RF	92.67	0.629	0.698	0.851
WRF	92.19	0.645	0.713	0.856

the knowledge recognition algorithm of multiple constraint models is used to evaluate and analyze the medical talent model, it takes less time than the design method of the medical talent training model evaluation system based on evidence-based reasoning and the time it takes to appraise and analyze the medical talent model based on the design method of the talent training model evaluation system based on the Hall's 3D structural model. Based on a variety of constraint model knowledge recognition algorithms, the medical talent training model evaluation system design method designs subroutine in the fuzzy comprehensive evaluation and analysis module, so as to substitute the fuzzy comprehensive evaluation and analysis procedure, which facilitates the system to call multiple times. In order to shorten the time used for evaluation and analysis of the system, the evaluation and analysis efficiency of the medical talent training model evaluation system design method based on various constraint model knowledge recognition algorithms has been improved.

In order to deeply analyze the statistic property of the system described in this paper, the effect evaluation of the medical teacher talent model of the local university is carried out. The main installation steps are shown as follows: (1) select appraisal objects y^i . (2) The system calls the information data of the medical talent in the database to yield and update the corresponding data. (3) Calculate the success rate of evolution corresponding to various plans. (4) Obtain relevant evaluation and analysis parameters and indicators. (5) Generate evaluation and analysis results.

The method described in this paper has certain feasibility, not only can generate multi-faceted indicators of evaluation and analysis, but also can generate the adequate values according to the actual status of medical professionals. Such a multi-faceted evaluation and analysis method

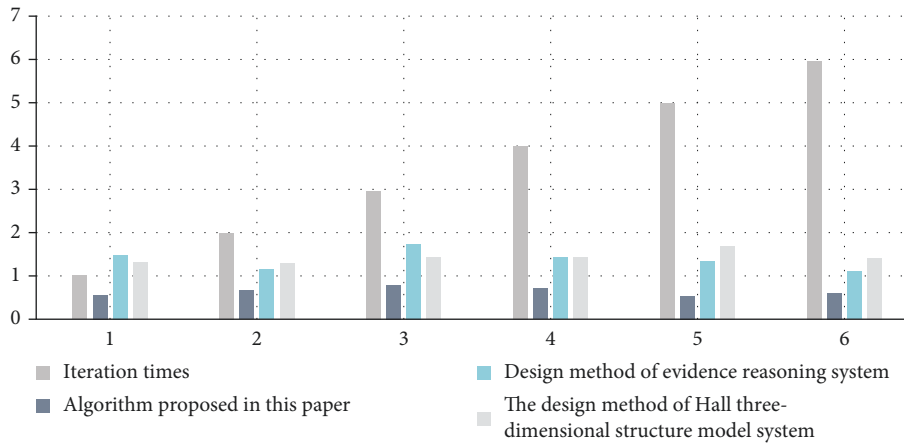


FIGURE 4: Evaluation and analysis time in different methods.

is that this method uses various constraint model knowledge recognition algorithms to obtain multi-objective evolutionary calculation results by analyzing multiple goals, multiple indicators, and different strategies, and realizes multi-dimensional analysis of medical talent evaluation.

5. Conclusions

On the whole, the ability to evaluate the talent training model is not strong enough. In terms of resource integration and talent training, the relevant experience is relatively weak. The main factors affecting the ability of college students to cultivate innovative talents can be roughly divided into basic theoretical knowledge of entrepreneurship: entrepreneurship-related support policies, entrepreneurial practice experience, and backup support personnel. In this paper, a standard multi-constraint model-based knowledge recognition algorithm is used to obtain a typical decision tree by using the feature selection mode of the algorithm. The optimized multiple constraint models can be used to effectively appraise the training property of medical professionals in practical applications. In the experimental test, comparison of the traditional algorithm shows the knowledge recognition algorithm of the multiple constraint model described in this paper is more accurate. In addition, the use of multiple constraint models can reduce the number of decision trees and shorten the execution time of the algorithm. The algorithm can be used to deal with the problem of model evaluation of college students and play an instructive and suggestive role in cultivating students in a targeted manner. The talent training evaluation model described in this paper can quickly improve the ability of cultivating college students' innovative consciousness and help settle the problems faced during the process of cultivating college students' talents. Therefore, this method has certain practicality and reference value.

Data Availability

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

Conflicts of Interest

The authors declare no conflicts of interest.

Acknowledgments

This research study was sponsored by the Humanities and Social Science Fund Project of Henan Province in 2021. The name of the project is Research on Socialist Core Values and Construction of Civic Morality in the New Era—a phased achievement based on the grassroots in Henan Province. The project number is 2022-ZDJH-00318. The authors thank the project for supporting this article.

References

- [1] I. W. G. Kwon, S. H. Kim, and D. G. Martin, "Healthcare supply chain management; strategic areas for quality and financial improvement," *Technological Forecasting and Social Change*, vol. 113, no. 2, pp. 422–428, 2016.
- [2] E. Johannesson and J. . Skogsborg, "Talent forecasting sett utifrån," *MOA-modellen*, vol. 1, no. 5, pp. 42–48, 2017.
- [3] I. R. Faber, P. Elferink-Gemser, F. Oosterveld, J. W. R. Twisk, and M. W. G. Nijhuis-Van Der Sanden, "Can an early perceptuo-motor skills assessment predict future performance in youth table tennis players? An observational study (1998–2013)," *Journal of Sports Sciences*, vol. 34, no. 5, pp. 1–9, 2016.
- [4] S. Bertoli, V. Dequiedt, and Y. Zenou, "Can selective immigration policies reduce migrants' quality?" *Journal of Development Economics*, vol. 119, no. 3, pp. 100–109, 2016.
- [5] V. Rojenko and A. Dahs, "Demographic determinants of creativity: the analysis of the development of creative potential and forecast for the baltic states," *Economics and Business*, vol. 30, no. 1, pp. 79–90, 2017.
- [6] D. Bates, "Tunes, tubes and clouds: getting your in-house talent out of the house and online. Part 1: production," *Legal Information Management*, vol. 16, no. 01, pp. 44–48, 2016.
- [7] J. Berke, R. Szabó, I. Bérczy, and A. Enyedi, "Digital photo school student workshop possibilities develop talent," *Journal of Applied Multimedia*, vol. 3, no. 2, pp. 36–40, 2015.
- [8] R. Geetha, K. Ramyadevi, and M. Balasubramanian, "Prediction of domestic power peak demand and consumption using supervised machine learning with smart meter dataset,"

- Multimedia Tools and Applications*, vol. 3, no. 1, pp. 1–19, 2021.
- [9] N. E. Mamonto, H. Maulana, D. Y. Liliana, and T. Basaruddin, “Multimedia content development as a facial expression datasets for recognition of human emotions,” *IOP Conference Series: Materials Science and Engineering*, vol. 306, no. 2, pp. 1090–1102, 2018.
- [10] A. Etinkaya and M. K. Baykan, “Prediction of middle school students’ programming talent using artificial neural networks,” *Engineering Science and Technology an International Journal*, vol. 2, no. 1, pp. 1–9, 2020.
- [11] D. Shen, J. Liu, D. Li, H. Jieying, and Y. Dan, “Evaluation model and empirical research on the contribution rate of meteorological talents,” *Microprocessors and Microsystems*, vol. 2, no. 5, pp. 10–19, 2021.
- [12] R. Ding, C. H. Muntean, and G. M. Muntean, “Energy-efficient device-differentiated cooperative adaptive multimedia delivery solution in wireless networks,” *Journal of Network and Computer Applications*, vol. 5, no. 3, pp. 56–63, 2015.
- [13] X. Chen and T. Wang, “General aircraft material demand forecast based on modified PSO optimized BP neural network,” *International Journal of Multimedia and Ubiquitous Engineering*, vol. 11, no. 6, pp. 181–194, 2016.
- [14] B. Xu, X. Li, L. Hao, and Y. Li, “Research on professional talent training technology based on multimedia remote image analysis,” *EURASIP Journal on Image and Video Processing*, vol. 9, no. 1, pp. 1–9, 2019.
- [15] P. Ilango and P. J. Kumar, “MQRC: QoS aware multimedia data replication in cloud,” *International Journal of Biomedical Engineering and Technology*, vol. 25, no. 4, pp. 250–259, 2017.