An Innovative Talent Training Management Method Based On Data Mining Technology

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Abstract: In order to improve the effectiveness of innovative talents training management under the integrated media collaborative teaching mode, this paper studies the effectiveness model of online learning by combining data mining and optimization prediction algorithm, and puts forward the effectiveness prediction model of innovative talents training management under the integrated media collaborative teaching mode based on data mining technology. This paper establishes the fusion clustering model of the panel data of the effectiveness evaluation of innovative talents training under the mode of integrated media collaborative teaching, analyzes the panel data of innovative talents training effectiveness evaluation under the mode of integrated media collaborative teaching by using fuzzy correlation fusion clustering method, and analyzes the characteristics of innovative talents training behavior and association rules mining under the mode of integrated media collaborative teaching, and analyzes the effect of innovative talents training management under the mode of integrated media collaborative teaching. The template feature matching method is used to optimize the learning process, the linear programming model is used to schedule and optimize the resources of innovative talents training under the integrated media collaborative teaching mode, and the fuzzy analytic model is used to predict the effectiveness of innovative talents training and optimize the scheduling of learning resources under the integrated media collaborative teaching mode. The simulation results show that this method has high accuracy and reliability in predicting the effectiveness of innovative talents training management under the integrated media collaborative teaching mode, and improves the convergence and optimization ability of the learning process.

Keywords: Media Integration, Collaborative Teaching Mode, Innovative Talents, Training Management, Validity, Data Mining.

Introduction

The online learning method is adopted to cultivate and manage innovative talents under the media-integrated collaborative teaching mode [1], so as to improve the effect and effectiveness of innovative talents cultivation and management under the media-integrated collaborative teaching mode, and the innovative talents cultivation method under the media-integrated collaborative teaching mode is an important teaching tool. Under the background of big data era [2], it has played an irreplaceable role, adopting the big data analysis method to analyze the curriculum reform of higher education, establishing the management model of innovative talents cultivation under the integrated media collaborative teaching mode, and combining the resource optimization scheduling and big data mining methods to transform teaching achievements and optimize the scheduling of teaching resources, so as to improve the pertinence and effectiveness of teaching. Research on the effectiveness model of innovative talents training management under the integrated media collaborative teaching mode has educational significance for improving college students' online teaching and optimizing control ability, and the related research methods of innovative talents training management effectiveness model under the integrated media collaborative teaching mode have attracted people's attention.

The effectiveness analysis of innovative talents training management under the integrated media collaborative teaching mode is based on the big data information fusion and feature analysis of online learning, combined with fuzzy information fusion and feature detection methods [3], to study innovative talents training methods and reliability analysis under the integrated media collaborative teaching mode. In the traditional method, the

effectiveness analysis methods of innovative talents training under the integrated media collaborative teaching mode mainly include fuzzy information detection method, characteristic analysis method and empirical analysis method. Combined with the association rule mining method, the information mining and big data fusion processing of innovative talents training management resources under the integrated media collaborative teaching mode are carried out. Fuzzy information clustering method is used to grid the collected information of innovative talents training management resources under the integrated media collaborative teaching mode to improve the effectiveness of online learning. In the reference [4], it puts forward an integration method of innovative talents training management under the integrated media collaborative teaching mode based on association rule mining. Combined with fuzzy C-means clustering analysis, it integrates innovative talents training management resources and features clustering under the integrated media collaborative teaching mode to improve the effectiveness of the education process. When this method is used to analyze the effectiveness of innovative talents training management under the integrated media collaborative teaching mode, the ambiguity is large and the feature recognition ability is poor. In the reference [5], the effectiveness analysis method of innovative talents training management under the integrated media collaborative teaching mode based on rough set feature matching is put forward. The integration and effectiveness analysis of innovative talents training management resources under the integrated media collaborative teaching mode are carried out by rough set feature matching method, and the adaptability of this method for online learning effectiveness evaluation is not good. In the reference [6], a statistical analysis method is put forward to analyze the effectiveness of innovative talents training management under the integrated media collaborative teaching mode. This method has poor optimization ability in the process of learning resource information fusion.

In view of the above problems, a prediction model of the effectiveness of innovative talent training management under the integrated media collaborative teaching mode based on data mining technology. Firstly, the fusion clustering model of the panel data for the effectiveness evaluation of innovative talents training under the integrated media collaborative teaching mode is established, then the learning process is optimized by template feature matching method, and the resource scheduling and optimal allocation of innovative talents training under the integrated media collaborative teaching mode are carried out by using linear programming model, so as to realize the effectiveness analysis of online learning. Finally, the simulation experiment analysis is carried out, and the effectiveness conclusion is drawn.

Big Data Statistical Analysis and Feature Extraction of Innovative Talents Training

Big Data Statistical Analysis of Innovative Talents Training

In order to realize the effectiveness model analysis of innovative talents training management under the integrated media collaborative teaching mode, this paper analyzes the practical effect of innovative talents training methods under the integrated media collaborative teaching mode by combining the fuzzy information fusion method, carries out feature modeling and hierarchical analysis by combining the systematic reconstruction method, analyzes the reliability and quantitative features of the practical effect of innovative talents training methods under the integrated media collaborative teaching mode, and adopts the compressed sensing combined multi-attribute method. Research on innovative talents training method under the mode of integrated media collaborative teaching, adopting analytic hierarchy process and multi-attribute research, the statistical analysis results of constraint parameters of innovative talents training management are as follows:

$$MSD_{a\to b}=1-\frac{\sum_{i=1}^{|I_{a,b}|}\sqrt{(d_{a,i}-\bar{d}_a)^2+(d_{b,i}-\bar{d}_b)^2}}{|I_{a,b}|\times\sum_{i=1}^{|I_{a,b}|}\left[\sqrt{(d_{a,i}-\bar{d}_a)^2}+\sqrt{(d_{b,i}-\bar{d}_b)^2}\right]} \tag{1}$$

Wherein, $MSD_{a\to b}$ is the multiple mapping model of innovative talents training management under the integrated media collaborative teaching mode, and the distribution level $\mathbf{x}^{(0)}$ of practical effects of innovative talents training methods under the integrated media collaborative teaching mode is divided into N grades. $\mathbf{x}^{(1)},\mathbf{x}^{(2)},\cdots,\mathbf{x}^{(N)}$, that is, $\mathbf{x}^{(0)}=\bigcup_{i=1}^{N}\mathbf{x}^{(i)}$. Using fuzzy information planning method to recover the characteristic parameter matrix, block fusion and linear programming method, and multi-attribute derivation method of

innovative talents training management, the integrated model of practical effects distribution of innovative talents training methods under the integrated media collaborative teaching mode is obtained as follows:

$$p\left(R^N = r_i\right) = p\begin{pmatrix} X^N = x_i \left| |x_i| = |r_i|, angle\left(x_i\right) \right. \\ = \left(angle\left(r_i\right) - \varphi_g\right) \bmod \left(2\pi\right) \end{pmatrix} \tag{2}$$

The method of finite element characteristic analysis is used, the reliability analysis and self-adaptive parameter simulation of innovative talents training under the integrated media collaborative teaching mode are carried out. By the method of multi-state integration, the fuzzy set function $R_2{}^T R_2 = V_2 \sum {}_2 V_2^T$ is constructed, and the statistical information component of the effectiveness of innovative talents training method under the integrated media collaborative teaching mode satisfies $I\left(R^N; \varphi_g \mid Z^N\right) = 0$, which is substituted into the above formula to obtain:

$$H\left(X^N \mid Z^N\right) = H\left(R^N \mid Z^N\right) + H\left(\varphi_g \mid Z^N\right) \tag{3}$$

By using sparse representation method, the state parameter set of innovative talents training method under the integrated media collaborative teaching mode is expressed as follows:

$$F = \left\{f_1, f_2, \cdots, f_n\right\} \tag{4}$$

From the quantitative evaluation of the practice effect of innovative talents training methods under the integrated media collaborative teaching mode [7], the fuzzy set scheduling set of the practice effect distribution of innovative talents training methods under the integrated media collaborative teaching mode under the big data mining mode is obtained as follows:

$$f(t) = \frac{1}{2\pi} \frac{d}{dt} [\arg z(t)] \tag{5}$$

Under different coding modes, the decision-making features of constructing the training effect of innovative talents under the integrated media collaborative teaching mode are as follows:

$$S_x = E\left[x^3(t)\right] + \sqrt{s} bu[s(t - \tau_0)] \tag{6}$$

$$K_x = E\left[x^4(t)\right] - 3E^2\left[x^2(t)\right] b \tag{7}$$

Wherein, $E\left[x^3(t)\right]$ is the expected value of the template data distribution of innovative talents training methods under the integrated media collaborative teaching mode, b represents the decision coefficient of innovative talents training management, and the fuzzy scheduling set of effectiveness analysis of innovative talents training methods under the integrated media collaborative teaching mode is as follows:

$$\begin{cases} H_0 : x'(t) = w(t) \\ H_1 : \sqrt{E} s'(t) + w(t) \end{cases} \quad 0 \le t \le T \tag{8}$$

Wherein：

$$x'(t) = x(t) * h_w(t) \tag{9}$$

$$s'(t) = s(t) * h_w(t) \tag{10}$$

Set up the fusion clustering model of the panel data of the effectiveness evaluation of innovative talents training under the integrated media collaborative teaching mode, use the fuzzy correlation fusion clustering method to analyze the panel data of the effectiveness evaluation of innovative talents training under the integrated media

collaborative teaching mode, and use the method of constraint parameter analysis to conduct online learning research under different construction modes [8].

Big Data Feature Extraction of Innovative Talent Training Management

Innovation skill is the behavior skill of the subject, and it is an important way to transform innovation achievements, mainly including hands-on ability, operation ability, practice ability, innovation skill ability, innovation achievements expression ability and materialization ability, etc. Innovation skill is the concentrated expression of the whole intelligence factor, which comprehensively reflects the individual's innovative learning ability, innovative knowledge base and innovative thinking ability, and is the basic way to manifest and realize intelligence [9]. The cultivation of innovative skills requires individuals to manifest their internalized knowledge and experience, and generally adopt independent practice. Task-driven, project-driven and competition-driven are effective ways to improve students' practical ability. "Using task-driven, event-driven, and project-driven, students can solve new problems, open up new fields, and create new ideas, new methods, and new products through the reuse and re-creation of acquired knowledge, skills, and experiences. Improve students' innovative skills through continuous practice [10]. Combined with big data mining method, this paper analyzes the characteristics and association rules of innovative talents cultivation under the integrated media collaborative teaching mode, and analyzes the effect of innovative talents cultivation management under the integrated media collaborative teaching mode . The regression analysis model of the effectiveness evaluation of innovative talents cultivation method under the integrated media collaborative teaching mode is expressed as follows:

$$S_{C/A}(f)=\frac{T_B}{(NT_C)^2}\left|X(f)\right|^2 + \sum_{l=-\infty}^{\infty}\sin c^2\left(\pi T_B\left(f-\frac{l}{NT_C}\right)\right) \tag{11}$$

Wherein

$$\left|X(f)\right|^2 = T_C{}^2 N\sin c^2(\pi f T_C)\left|X_{code}(f)\right|^2 \tag{12}$$

$$X_{code}(f)=\frac{1}{\sqrt{N}}\sum_{n=0}^{N-1}x_n\exp(-j2\pi fnT_c) \tag{13}$$

In the above formula, T_C is the distribution threshold of the prior knowledge of the reliability of innovative talents training management under the integrated media collaborative teaching mode, f is the ambiguity coefficient of multiple iterations of innovative talents training under the integrated media collaborative teaching mode, and $\left|X_{code}(f)\right|$ is the distribution set of innovative talents training behavior characteristics under the integrated media collaborative teaching mode. The binary programming model of innovative talents training under the integrated media collaborative teaching mode is constructed, and the programming function is as follows:

$$\begin{pmatrix}x_1(t)\\ \vdots \\ x_m(t)\end{pmatrix}=\begin{pmatrix}a_{1i}\\ \vdots \\ a_{mi}\end{pmatrix}s_1(t)\Rightarrow\frac{x_1(t)}{a_{1i}}=\cdots=\frac{x_m(t)}{a_{mi}}=s_i(t) \tag{14}$$

Combined with the sparse regression analysis method, the statistical analysis model of the correlation of innovative talents training parties under the integrated media collaborative teaching mode is obtained as follows:

$$\hat{w}_j^k=\begin{cases}sign(w_j^k)\left(|w_j^k|-\beta\cdot T_j\right), \text{if } |w_j^k|\geq T_j\\ 0, \qquad \text{else}\end{cases} \qquad j=1,2,...,J+1 \tag{15}$$

Construct a fuzzy state feature distribution set of the effect distribution of innovative talents training methods under the integrated media collaborative teaching mode, and adopt the method of binary programming. The descriptive statistical features of innovative talents training management under the integrated media collaborative teaching mode are expressed as follows:

$$T_j = \begin{cases} \sigma\sqrt{2\ln(N)}(1-\frac{J}{2}\times\frac{E_j}{\sum_{j=1}^{J+1}E_j}), & j=1,2,...,J \\ \sigma\sqrt{2\ln(N)}\times\frac{E_j}{\sum_{j=1}^{J+1}E_j}, & j=J+1 \end{cases} \tag{16}$$

Wherein, N represents the ambiguity index length of innovative talents training management under the integrated media collaborative teaching mode, and J is the order of hierarchical analysis of the practical effect of innovative talents training methods under the integrated media collaborative teaching mode. To sum up, the quantitative analysis of the practical effect of innovative talents training methods under the integrated media collaborative teaching mode is realized [11]. This study makes use of the characteristics of "propaganda and mutual integration" of the media to build a multi-channel communication, communication and publicity platform, and to build platform services from the whole process of publicity, implementation and termination of the events, so as to better support students' innovative practice. Secondly, stimulate students' "internet plus" thinking and encourage them to combine "Internet" with creative products to form "internet plus" business model.

Talent training management analysis and optimization

Innovative Personnel Training and Management of Resource Scheduling

Innovative learning ability is an important basic ability of innovative ability. Professional teachers of the Department of Educational Information Technology apply the integrated media platform in the classroom, combine the curriculum objectives and contents, and innovate teaching methods, such as task-driven teaching and project-driven teaching, to give full play to students' subjective initiative, to exercise students' media literacy, and to cultivate students' innovative learning ability from classroom learning [12], [13], [14], [15].

The template feature matching method is used to optimize the learning process, the linear programming model is used to schedule and optimize the resources of innovative talents training under the integrated media collaborative teaching mode, the related feature information of the effectiveness of innovative talents training methods under the integrated media collaborative teaching mode is extracted, and the process optimization control method is used to evaluate the effectiveness of innovative talents training methods under the integrated media collaborative teaching mode[16]. The data link of the effectiveness evaluation of innovative talents training method under the media-integrated collaborative teaching mode generates metadata $S=\{1,2,...,N\}$, and the statistical characteristic quantity of the effectiveness evaluation of innovative talents training method under the media-integrated collaborative teaching mode is obtained by using the association rule mining method as follows:

$$P(r(t+\Delta)) = \begin{cases} r_{ij}\Delta + o\Delta \\ 1 + r_{ij}\Delta + o\Delta \end{cases} \tag{17}$$

Wherein, $\Delta > 0$ and $r_{ij} > 0$, it represents the autocorrelation characteristic quantity of the effectiveness evaluation of innovative talents training method under the mode of integrated media collaborative teaching, and:

$$r_{ij} = -\sum_{j\neq i} r_{ij} \tag{18}$$

Combined with the optimal mode selection method, the effectiveness evaluation of innovative talents training method and the analysis of optimal education mode under the integrated media collaborative teaching mode are realized.

Prediction and Evaluation of Educational Effectiveness

The template feature matching method is used to optimize the learning process, the linear programming model is used to schedule and optimize the resource allocation of innovative talents training under the integrated media collaborative teaching mode, and the process optimization control method is used to analyze the effectiveness of innovative talents training methods under the integrated media collaborative teaching mode [17], [18], [19]. The fuzzy control function for evaluating the effectiveness of innovative talents training methods under the integrated media collaborative teaching mode is as follows:

$$M_v = w_1 \sum_{i=1}^{m\times n}(H_i - S_i) + M_h w_2 \sum_{i=1}^{m\times n}(S_i - V_i) + w_3 \sum_{i=1}^{m\times n}(V_i - H_i) \tag{19}$$

In the above formula, the characteristic quantity of the effectiveness distribution of innovative talents training method under the integrated media collaborative teaching mode is M_h. After fuzzy correlation characteristics V, the template matching method is adopted to realize the linear regression analysis of the effectiveness of innovative talents training method under the integrated media collaborative teaching mode, and the reliability control model of effectiveness evaluation is expressed as follows:

$$x_i = \begin{cases} 0, & M - \sum_{j=1}^{\lfloor n/2 \rfloor} w_j - \sum_{j=\lfloor n/2 \rfloor+1}^{i} w_j - \sum_{j=i+1}^{k} w_j < 0, i \le k, \\ & f_i(M,n,w,c,r) = \min\{f(M,n,w,c,r)\} \\ 1, & M - \sum_{j=1}^{\lfloor n/2 \rfloor} w_j - \sum_{j=\lfloor n/2 \rfloor+1}^{i} w_j - \sum_{j=i+1}^{k} w_j > 0 \end{cases} \tag{20}$$

Based on big data mining technology and piecewise regression analysis method, the statistical function of the effectiveness analysis of innovative talents training method under the integrated media collaborative teaching mode is obtained as follows:

$$\min F = R^2 + A\sum_i \xi_i$$
$$s.t : \| \phi(x_i) - o \|^2 \le R^2 + \xi_i \; and \; \xi_i \ge 0, i = 1,2,... \tag{21}$$

$$\max \sum_i \alpha_i K(x_i, x_i) - \sum_i \sum_j \alpha_i \alpha_j K(x_i, x_j)$$
$$s.t : \sum_i \alpha_i = 1 \; and \; 0 \le \alpha_i \le A, i = 1,2,... \tag{22}$$

In the optimal cluster center, $\boldsymbol{p}_j(t+1)$ is used to represent the $t+1$ -th optimal feature distribution set, and the reliability analysis model of innovative talents training method under the integrated media collaborative teaching mode is $\boldsymbol{a}_1, \boldsymbol{a}_2$. In the M-dimensional random distribution space, the optimal convergence component of online reliability learning of college students is:

$$\boldsymbol{p}_g(t) = \arg\min\{f(\boldsymbol{p}_j(t)) \mid j = 1,2,\text{L} \;\; ,n\} \tag{23}$$

Wherein, $f(\boldsymbol{p}_j(t))$ is the process function of innovative talents cultivation under the integrated media collaborative teaching mode. The statistical features of innovative talents cultivation under the integrated media collaborative teaching mode are evaluated for effectiveness. The learning process is optimized by template feature matching method. The linear programming model is used for resource scheduling and optimal allocation

of innovative talents cultivation under the integrated media collaborative teaching mode, and the fuzzy analytic model is combined to predict the effectiveness of innovative talents cultivation and optimize the scheduling of learning resources. To sum up, learning resources spread through various channels and presented by various carriers are the basic conditions for cultivating college students' innovative ability. It not only provides resources for cultivating students' innovative learning ability, but also creates favorable conditions for students' acquisition of innovative knowledge. The Department of Information Technology has broken through the limited learning resources by using the characteristics of multi-channel communication and multi-carrier presentation of the media, and has built a media-integrated learning resource that integrates paper media, electronic media and online media, and built an online+offline learning resource library. Not only have a large number of learning resources, but also low-cost and high-efficiency online learning resources have a positive effect on knowledge acquisition. Based on the existing offline learning resources such as reading room, the Department of Information Technology uses Internet technology to construct online learning resource database, forming online+offline learning resource database, which provides various forms and sufficient learning resources for students to learn interdisciplinary knowledge and innovative knowledge independently [20],[21], [22].

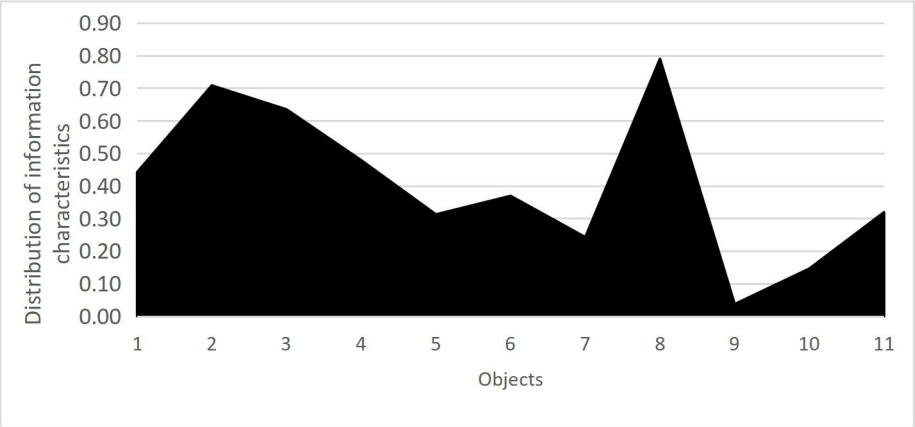
Simulation Analysis

Media integration+events and projects refer to the innovative events and projects of college students in the media integration environment, which on the one hand creates a good environment for college students' innovative practice, and on the other hand provides a platform for college students' innovative practice. The Department of Information Technology makes use of the characteristics of media integration to carry out media integration+events and projects. Its "media integration+"mainly includes two parts. The first part is to optimize the process of events and projects by making use of the advantages of media integration platform such as publicity, publication and communication. On the one hand, it actively encourages students to participate in events and projects through multiple channels; on the other hand, it uses media integration platform to realize the guidance of off-campus tutors. The second part encourages students to open up "internet plus" commercial projects, and actively encourages students to make use of online media platforms, integrate traditional industries, and realize innovative and entrepreneurial projects. The statistical sample number of big data samples of innovative talents training information under the integrated media collaborative teaching mode is 1,000, the parameter test set of the integrated media collaborative teaching mode is 120, the fuzzy correlation feature matching coefficient is 0.24, the regression value of big data mining samples of innovative talents training under the integrated media collaborative teaching mode is 1.68, and the statistical analysis results of innovation effectiveness evaluation under the integrated media collaborative teaching mode are shown in Table 1.

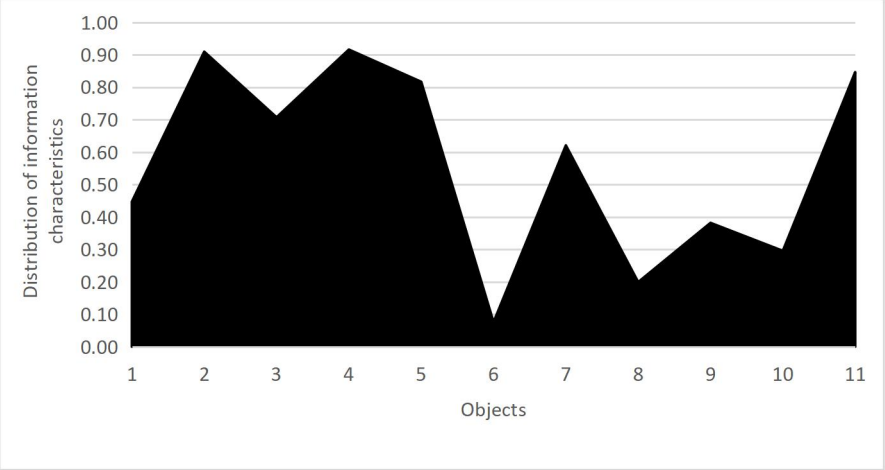
Table 1. Results of statistical analysis on effectiveness evaluation of talent training methods

Data set	Number of feature categories	Fuzzy distribution set /MBit	Correlation dimension
Test set 1	266	32000	64
Test set 2	255	46000	32
Test set 3	286	76000	42
Test set 4	155	16000	21

According to the statistical results in Table 1, the big data mining technology and linear programming model are used to schedule and optimize the resources of innovative talents cultivation under the integrated media collaborative teaching mode, and the information characteristics distribution of innovative talents cultivation under the integrated media collaborative teaching mode is shown in Figure 1.



(a) Achievements of Innovative Activities



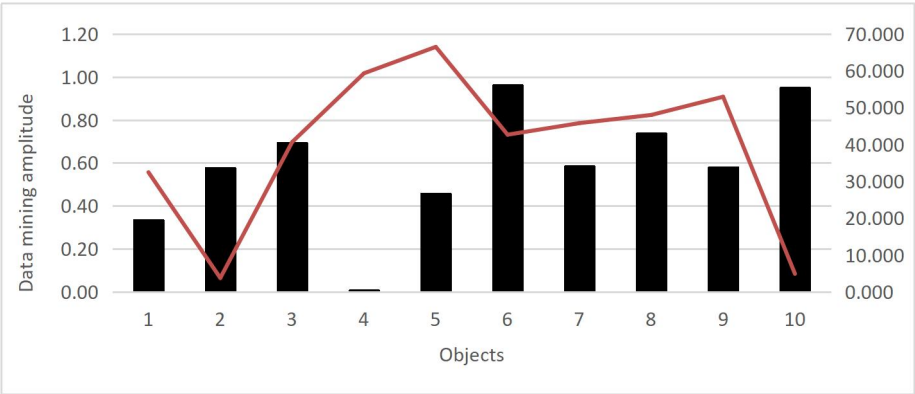
(b) Subject Uniqueness

(c) Course Design Quality

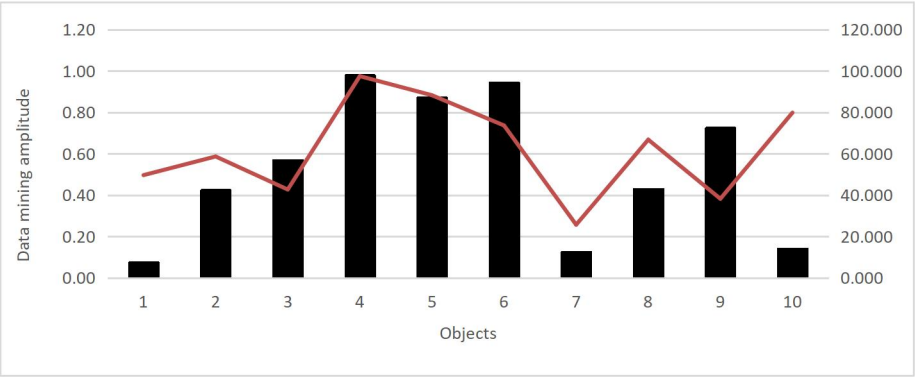
(d) Results of Graduation Thesis

Figure 1. Distribution of Big Data Characteristics of Innovative Talents Training Management Information Under the Mode of Integrated Media Collaborative Teaching

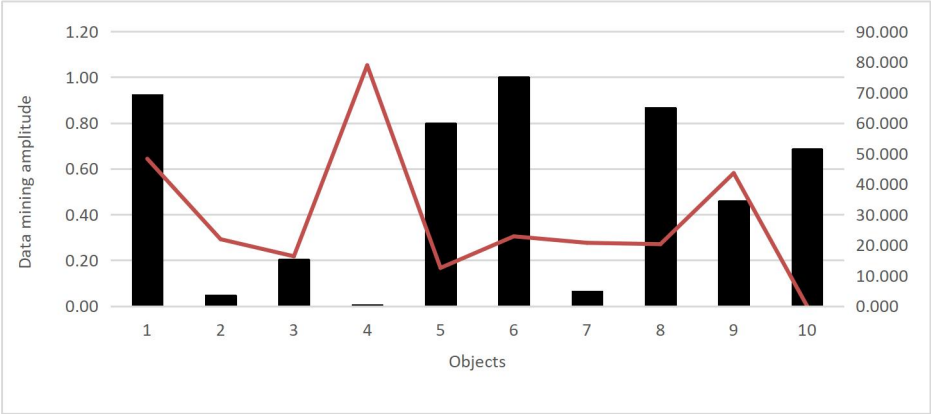
According to the distribution results in Figure 1, combined with the fuzzy analytic model, the effectiveness of innovative talents training and the optimal scheduling of learning resources under the integrated media collaborative teaching mode are predicted. Among them, college students' innovative skills include the results of innovative activities, the uniqueness of topics, the quality of curriculum design and the results of graduation thesis. At this stage, it analyzes the winning situation of the media-integration competition and the participation in the project carried out by the Department of Education and Information. Through interviews and other channels, this paper collects the information of college students' media events and projects in recent years, and reflects the innovative skills of college students. The statistical analysis results of big data of innovative talents training management are shown in Figure 2.



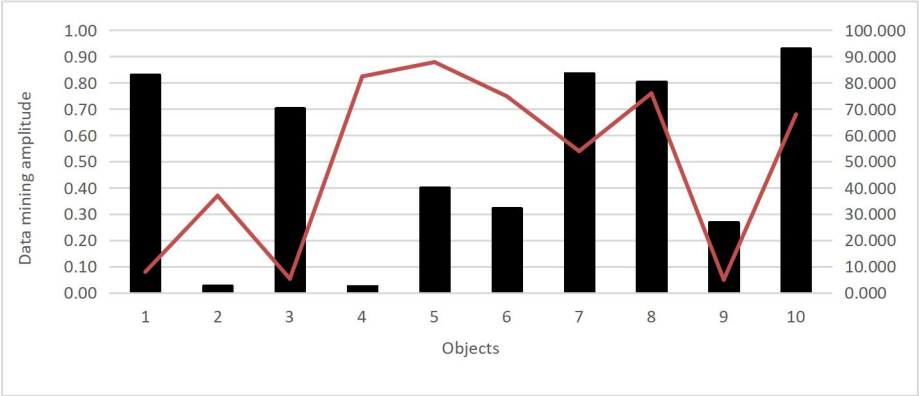
(a) Intuitive Thinking Ability



(b) Logical Thinking Ability



(c) Creative Imagination



(d) Critical Thinking Ability

Figure 2. Results of Big Data Mining and Feature Analysis of Innovative Talent Cultivation Management

According to the analysis of the behavior characteristics of cultivation management in Figure 2, the following conclusions are drawn:

Innovative thinking ability includes intuitive thinking ability, logical thinking ability, innovative imagination ability and critical thinking ability. According to the research, the innovative thinking ability mainly has nine characteristics, such as breakthrough, novelty, multidirectional (fluency, flexibility, uniqueness, positive thinking, reverse thinking, lateral thinking), profundity, independence, surprise, agility, risk and non-logic. The creation of works is a process in which college students' innovative thinking is manifested and materialized, and the quality and level of works directly reflect students' innovative thinking ability. Based on the analysis of the conception, aesthetics, novelty and uniqueness of photographic works, this study draws the following conclusions.

(1) Students' homework. By observing the comparison of students' works before and after, we can reflect the changes of students' innovative thinking ability. In each class, teachers will share the works of outstanding students on WeChat WeChat official account. Through the comparison before and after, it can be found that students' creative level has been significantly improved.

(2) Evaluation of teachers. Through the analysis of teachers' evaluation, we can see the changes of college students' works, and then reflect students' innovative thinking ability. Through the comments of teachers in each course, it can be found that teachers' satisfaction with students' works is constantly improving, ranging from "there is no good photo" to "this photo has a good composition" and "this silhouette is very artistic". Through the communication with the teachers, "now the quality of students' works is getting higher and higher, and excellent works with both aesthetic feeling and creativity can be produced in studios and portrait studios".

(3) Exhibition of works. Award-winning works are the manifestation and materialization of students' innovative thinking. The number and achievements of award-winning works reflect the level of students' innovative thinking. Observe the cultural wall on the fifth floor of the laboratory to see students' award-winning works, including photography, graphic design, animation and so on.

To sum up, through the analysis of college students' photographic works, it is found that participating in intuitive learning not only improves students' professional skills, but also stimulates college students' innovative thinking. Secondly, the survey found that the sharing exhibition of excellent works inspired students' creative inspiration on the one hand. On the other hand, it encourages the award-winning students and creates a good atmosphere for mutual learning. Students learn from each other in healthy competition. This method can effectively realize the effectiveness management and optimal scheduling of innovative talents training methods under the integrated media collaborative teaching mode.

Table 2. Talent training effect prediction results

Iterative steps	This method	Reference[4]	Reference[5]
10	93.79	79.14	68.49
20	88.58	76.78	67.75
30	86.16	76.77	67.40
40	90.16	77.58	67.97
50	97.60	78.60	69.04
60	95.65	77.34	68.76
70	98.63	79.21	69.19
80	91.28	77.92	68.13

Conclusions

In this paper, the innovative talents training management model under the integrated media collaborative teaching mode is established, and the teaching achievements are transformed and the teaching resources are optimized by combining resource optimization scheduling and big data mining methods. In this paper, the effectiveness prediction model of innovative talents training management under the integrated media collaborative teaching mode based on data mining technology is proposed, and the state parameter set of innovative talents training method under the integrated media collaborative teaching mode is obtained by sparse representation. This paper establishes the fusion clustering model of the panel data for evaluating the effectiveness of innovative talents training in the mode of integrated media collaborative teaching, adopts the template matching method to realize the linear regression analysis of the effectiveness of innovative talents training methods in the mode of integrated media collaborative teaching, analyzes the effect of innovative talents training management in the mode of integrated media collaborative teaching, optimizes the learning process by the template feature matching method, and adopts the linear programming model to schedule and optimize the allocation of resources for innovative talents training in the mode of integrated media collaborative teaching, thus realizing the effective prediction of innovative talents training and the optimal scheduling of learning resources. The analysis shows that the prediction accuracy of the effectiveness of innovative talents training management under the integrated media collaborative teaching mode is high and the learning effect is good. According to the questionnaire data, more than 80% of students think that the flip classroom teaching based on the media platform is beneficial to students' learning. More than 70% students have the ability to innovate knowledge (the ability to retrieve information). The interview results directly show that by taking part in the task-driven teaching course-Educational Technology under the platform of media integration, I have trained my ability to use network tools to retrieve information and update my knowledge. To sum up, it can be seen that the task-driven teaching based on the media platform has effectively improved the innovative learning ability of college students. Comprehensive survey results show that task-driven teaching, online+offline learning resources, digital resources spread by multiple carriers, and media+events and projects in the media environment have positive effects on the cultivation of college students' innovative ability. With the characteristics of multi-channel communication, multi-carrier presentation and cross-time interaction, the integrated media is applied to classroom teaching, resource construction, education management and other aspects, which provides resource conditions for the cultivation of innovative learning ability and innovative knowledge base, creates a good environment for the cultivation of innovative thinking ability and innovative skills, and plays a positive role in the development of college students' innovative ability. The details are as

follows: First, using the online communication, resource sharing, information dissemination, information retrieval and other functions of the media platform is conducive to cultivating students' innovative learning ability. Secondly, the online+offline learning resources constructed by the media platform have the characteristics of massive storage, low cost and convenience, which is an effective way to cultivate college students' innovative knowledge base. Thirdly, the digital resources spread by multi-carriers in the media can be used to form digital resources in class and after class, which can enrich students' sensory experience and stimulate their innovative thinking. Fourthly, make use of the timeliness of media information dissemination and the diversification of communication channels, optimize the event process, and form a tutor guidance mechanism inside and outside the school, so that media can be used throughout the publicity, communication, guidance and achievement display of the event. At the same time, with the help of the media integration platform, the integration of the Internet and traditional industries will be realized, and a "internet plus" commercial project will be formed, so as to truly practice independently.

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Conflict of Interest

The authors declare that they have no conflicts of interest regarding this work.

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