

Reflection on Case Teaching Method and Construction of Case Bank for Civics Courses in Colleges and Universities Based on the Background of Internet

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Abstract. This paper is based on the Internet background, combined with a collaborative filtering algorithm. According to the initial cohesion point of the automatic evaluation index, the distance between the data and the clustering center is assessed to determine the objective function. Using the fuzzy comprehensive judgment value to assess the degree of affiliation of each grade, the fusion of the probability mean of the distribution of the Civics course is realized through the linear feature fusion method to realize the clustering of the data for the automatic evaluation of the Civics course. It was found that the evaluation score of Civics case teaching quality gradually increased from 1.5 to 3.8 points, and the variance in the teaching direction was 0.657, with the error rate controlled below 10%. Teachers of Civics and Politics courses in colleges and universities are able to achieve the goal of teaching and educating people by using collaborative filtering algorithms to integrate teaching resources in the Internet context.

1. Introduction

With the increasing update of new media technology and the rapid progress of digital technology, the Internet has become the most influential information carrier and communication channel today with unparalleled great advantages and strong vitality, influencing people's way of thinking and values and becoming a powerful lever to pry [1-4]. Civic and political courses in colleges and universities are the main channel and the main position to strengthen the ideological and political education of college students, and they are compulsory courses for college students, which are the essential characteristics of colleges and universities [5-7]. Among them, the effectiveness of case teaching can continuously improve the ideological and political literacy and moral cultivation of college students and give students the correct three concepts of philosophy and precise thinking mode through educational output [8-10]. Under this circumstance, case teaching in college Civics and Political Science classes is also advancing with the times, constantly

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producing changes and posing new challenges. Therefore, the Civic and Political Science Classes in colleges and universities should grasp the opportunity to meet the challenges and actively innovate in order to better meet the actual development needs of college students [11-13].

Peng, J shows that cultivating students' morals and values is an important part of quality education in colleges and universities, and the main purpose of ideological and political education of college students is to help students cultivate noble character and good values. Its study establishes an ideological and political model based on the data set and improves the effectiveness measures of ideological and political education [14]. Jiang, Y et al. point out that higher education is an organic part of social culture and the historical accumulation of social and cultural development. Their study analyzes the cultural education orientation of political teaching in colleges and universities in the context of new media. With advanced culture as the main content, the core value system leads various social trends, cultivates correct cultural values of college students, and constantly improves the effectiveness of cultural education [15].

Junjie, F et al. suggest that the scientific application of big data methods brings new opportunities for political education teaching reform. Their research improves the effectiveness of teaching evaluation in political classes by using big data samples and realizes the monitoring of classroom data. Thus, it greatly improves the visual impact of political class teaching and points out a new direction for the development of political education in the future [16]. Yun, L et al. propose an effective model for teaching ideological and political classes in colleges and universities under the background of new media in order to improve the efficiency of ideological and political class teaching in colleges and universities [17]. The above studies are basically based on theoretical knowledge education, which will lead to students' low interest in listening to lectures. And there are no practical cases from the students' side, which is difficult to cause students' emotional and ideological resonance.

This paper combines the Internet background with the case teaching method of the Civics class in colleges and universities and designs a case teaching reflection model for the Civics class in colleges and universities. The evaluation indexes are classified and quantified into constraint index data, and the collaborative filtering constraint index data analysis is carried out to standardize the evaluation data of the Civics and Politics class. The fuzzy dynamic equation of the Civics and Political Science course was derived according to the group center of gravity analysis, the distance between the assessment data and the clustering center was calculated, and the resulting data information was clustered and integrated. The estimation equation of the automated assessment of the course is transformed into a least-squares solution to realize the integration of the probability mean of the distribution of the assessment indicators of the Civics and Political Science Class and the results of the digital assessment of ideological and political education are predicted by analyzing the quality of the Civics teaching and Civics classroom interactions, and by means of the foresight value of the real-time analysis of the data of the collaborative filtering algorithm in the background of the Internet, so as to make the demonstration of the process of the digital assessment of Civics and Political Science Class dynamic. Timely correction and improvement of educational programs and educational methods will further improve the accuracy of ideological and political education.

2. Based on the Internet Background of the College Political Thinking Inquiry

2.1. Constructing a Reflective Model for Case Teaching in Civics Courses in Colleges and Universities

Teaching mode innovation based on the background of the Internet continues to impact the traditional classroom teaching mode; the use of mobile terminals and the application of network teaching platforms have seen online learning, and blended learning has become a major trend. Civics teaching in colleges and universities should make full use of the advantages of the Internet and the deep integration of teaching, exploring the design of the teaching mode of applying new information technology, and realizing the innovation of the teaching means, teaching content, teaching organization process and other aspects of teaching in the information technology environment [18-20]. Students need to be tutored and guided accordingly in the independent exploration of new areas and the acquisition of specific skills around the stages of teaching. In the classroom stage, as well as teachers and students are in a satisfying environment of information technology applications to carry out teaching and learning activities. It is possible to teach

more effectively, master learner behavioral data, analyze the learning status of learners, and predict the rationality of teaching strategies. Figure 1 shows the case study teaching reflection model of the Civics class in colleges and universities by analyzing the fit between the Internet and classroom teaching combined with the characteristics of the discipline to set the corresponding teaching objectives, placing teachers and students in the information technology environment, and constructing a classroom teaching model with a clear process, high applicability, and flexible use.

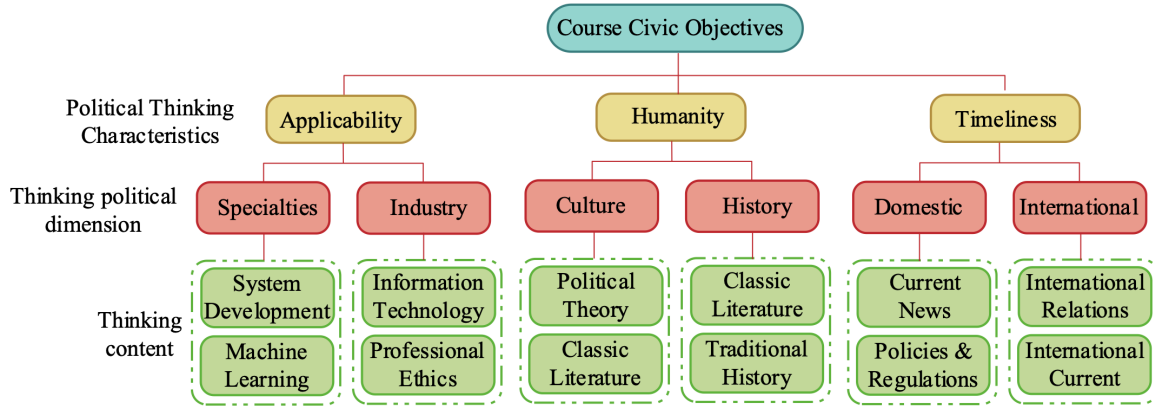


Figure 1: Reflection on Case Teaching of Ideological and Political Courses in Universities

The process of reflecting on the teaching and learning of the Civics and Political Science case study in higher education is as follows:

1. In the course development stage, teachers make full use of new information technology to develop teaching resources to assist teaching and need to have the ability to skillfully use technology combined with the teaching focus to complete the basic knowledge required for the course teaching design.
2. In the classroom teaching stage, guide and encourage students to carry out inquiry-based learning and create certain scenarios to provide students with personalized guidance to ensure the integrity of the teaching content.
3. In the post-course extension phase, internalize and transfer the classroom teaching knowledge, summarize the experience and shortcomings of the actual teaching process, and timely feedback on the completion of students' post-course tasks, analyze students' learning dynamics with the help of the network teaching platform, and improve the teaching effect.

2.2. Teaching with Collaborative Filtering Algorithm Constraints

2.2.1. Resource recommendations

The process of indicator quantification is the first level of constraint indicator data, set as the timeliness of the Civics course. According to the dynamic clustering analysis, the Civics course automatic evaluation indicator data is standardized, the specific expression [21-22]:

$$u_i = K_{i,n}(I_{i,n}) + c^2 \quad (1)$$

$$J = \frac{k}{2} \sum_{i=1, n=4} K_{i,n}(I) u_i^2 \quad (2)$$

k is the clustering center value, u_i^2 is the weight of the identified indicators for different categories.

$$T = \frac{J}{2} \sum_{i=1, n=4} K_{i,n}(I) u_i^2 - \sum_{i=1} \eta \phi_i \quad (3)$$

In order to realize the automated assessment of the Civics course, based on the clustering analysis results obtained from the optimal scheme fuzzy comprehensive judgment value. The model can contribute to the improvement of quantitative data management and planning ability in the process of teaching automated assessment, and the course automation evaluation indexes are transformed into the estimation formula of constraint indexes, on the basis of which the construction of the parametric model of constraint course level can be completed, and then the course automation analysis model can be obtained. The estimating equation, of course, automation evaluation is transformed into finding the least squares solution:

$$U = \sum_{n=1} R \cdot w - \sum_{i=1} \eta \phi_i + T \quad (4)$$

$$v = \frac{T \sqrt{x}}{2} \cdot \partial + \sqrt{m} \sum b_i \cdot t \quad (5)$$

The preference of students with higher levels of Civics learning is used as a recommendation type to follow up with other target users, and the user's own characteristics are analyzed under the personalized characteristics of college students to find the adjacent attributes between different users. It is necessary to ensure the diversity of data in the collection of user behavioral data, collect user preference data in various forms, and normalize the data set constraints to achieve the similarity calculation, which is calculated by the formula:

$$a(s, d) = \sqrt{\sum (s_f - d_f)^2} \quad (6)$$

$$\text{sim}(s, d) = \frac{1}{a(s, d)} \quad (7)$$

s, d are any two points in the dimensional space, f is the number of points, and $a(s, d)$ is the Euclidean distance. The similarity is calculated through this distance to quantitatively represent the degree of quantitative preference of users for a certain kind of Civic Education resources, and the personalized recommendation of resources is realized according to the quantitative preference of users.

The personalized recommendation is realized through a collaborative filtering algorithm, randomly selecting student user data as the initial center and calculating the distance from other objects to the initial clustering center. Set the objective function as:

$$h_j = \sum_{k=1}^g \sum_{l \in j_k} |l - c_k|^2 \quad (8)$$

Where j_k is the subclass of the data object, c_k is the mean value of the data object, and h_j is the square difference between the two. After inputting user objects and clustering centers, according to the clustering algorithm can randomly select multiple clustering centers to classify the smallest data objects into the type, and when the clustering centers are exactly the same, the recommendation of the Civic Education Resources can be completed.

2.2.2. Recommendation process

A collaborative filtering algorithm generates a variety of frequent item sets by scanning the information many times, and after formulating the support and confidence queues, the frequent item sets are formed by pruning and connecting them on this basis. It is connected many times until no other new frequent itemsets are generated and then stopped, indicating that the scanning is over and the algorithm is stopped. During the multiple loops, i.e., the generation of frequent item level phase, a set is generated which contains a large number of candidate frequent itemsets. If a term set is not frequent, then any subset generated is also not a frequent term set, and this set can be pruned. Such connected items obtained express a backward and forward correlation. The collaborative filtering algorithm process is shown in Fig. 2, and the specific process is:

1. The main users of the evaluation of college and university civic education are students, experts, teachers and system administrators. Although the evaluation object is students, students can complete self-assessment, and experts and teachers can assess the civic environment and hardware and software conditions. The functional requirements of students include participation in assessment and inquiry of personal assessment results. The functional requirements of experts and teachers include participation in assessment, the release of assessment activities, and the selection of assessment items, and the functional requirements of system administrators include the establishment of assessment items, setting of assessment indexes, and inquiry and statistical analysis of assessment results.
2. The data management requirements for the evaluation of university civic education include data collection, data storage, data analysis, data query, etc. The system needs to automatically integrate the results of student evaluation and expert teacher evaluation in the same school to provide feedback on the effectiveness of civic education in different universities. At the same time, it effectively monitors data anomalies and guarantees the accuracy of the results of the Civic and Political Education assessment. Instead of setting up a separate system administrator from the point of view of convenience, each implementing teacher manages the data of the organization's assessment activities by himself or herself, and it can also be shared in the analysis of teachers' influencing factors. The ability to track individual assessments for vertical comparison and the ability to correlate different assessment objects for horizontal comparison.

The reflective model of case study teaching of Civics and Political Science in higher education adopts collaborative filtering algorithms to mine the correlation relationship between individual characteristics, school environment characteristics and other factors and students' Civics and Political Science education assessment scores so as to evaluate the level of Civics and Political Science education from different dimensions. In the context of the Internet, the analysis of the conclusion of the correlation relationship is provided, and in the non-quantitative context, this approach makes the assessment results more operable.

2.3. Calculate the case base using the loss function

The similarity calculation model of the loss function allows the calculation of the similarity value between each score point in the standard answer and each semantically complete sentence in the student's answer, combined with the score value of each score point. Assuming that the matrix of score points calculates the similarity, the formula for each element in the score matrix is as follows:

$$L = -\frac{1}{N} \sum_{i=1}^N [y_i \log p_i + (1 - y_i) \log(1 - y_i)] \quad (9)$$

By reflecting on whether the weights of the feature attributes it reflects can improve the effectiveness of case retrieval, the fitness function is therefore:

$$f = \sum_{j=1}^Q q_j / Q \quad (10)$$

Q is the size of the test case set, and $\sum_{j=1}^Q q_j$ indicates the number of successful matches of the Q test cases through retrieval. q_j denotes whether the j th test case retrieves a match in the historical cases when the weights expressed in chromosome C are added.

The similarity between the Civics courses is calculated according to the evaluation matrix according to the historical preference fusion similarity set:

$$sim(i, j) = \frac{\sum_{u \in U} (R_{ui} - \bar{R}_i)(R_{uj} - \bar{R}_j)}{\sqrt{\sum_{u \in U} (R_{ui} - \bar{R}_i)^2} \sqrt{\sum_{u \in U} (R_{uj} - \bar{R}_j)^2}} \quad (11)$$

For the situation of students' points of interest shifting faster, students' preference for current events resulted in a very large correlation between the recommendation effect and time through the introduction of the forgetting curve based on the timeliness of students' interests for optimization, the introduction of the time decay factor incorporates the effect of time on the recommendation rules, then the time decay factor:

$$s(u, v, i) = e^{-a_i \frac{|t_{ui} - t_{vi}|}{t_{i\max} - t_{i\min}}} \quad (12)$$

In order to improve the accuracy of online civics teaching resources classification, the mutual information method is used for the extraction of teaching resources features. The mutual information parameter of all the data of online Civics teaching resources is calculated as:

$$Z = \frac{1}{m + r} (Z_1 + Z_2) \quad (13)$$

After scanning the online teaching resources sample eigenvalues, determine and classify the different categories and classes of teaching resources, construct a decision tree classifier to represent the Civics teaching resources with the root of the leaf nodes, group the leaf nodes, and measure the leaf nodes by using the aggregation function, the specific measurement formula is:

$$d_{ij} = \sqrt{\sum_{i=1}^m (x_i - x_j)^2} \quad (14)$$

Assuming that different parameters are involved in the process of classification and storage of teaching resources, each parameter is an independent state, the use of square coding to determine the classification results, the number of case study classifications can be predicted, and the final classification function, the specific expression is:

$$BTR(R) = -2 \sum_{i=1}^j d_i + m_i \log(N) \quad (15)$$

The shortest distance algorithm is used to find out the shortest database case feature item corresponding to each feature item of the user input case, and the result is substituted into the formula of the nearest neighbor algorithm:

$$sim(T, D) = \frac{\sum_{i=1}^n w_i \times \mu \times sim(f_i^T, f_i^D)}{\sum_{i=1}^n w_i} \quad (16)$$

f_i^T, f_i^D denotes the attribute values corresponding to the input case and the database case, respectively, w_i denotes the weight of the i rd feature term in the whole set of case attributes, μ is the consumption factor for the relational mapping, and $sim(f_i^T, f_i^D)$ calculates the local similarity.

The case library search process measures the similarity between the new case entered by the user and the source case in the library by the distance between the two and then selects the case with high similarity as the search result. The similarity formula using Euclidean distance is as follows:

$$S(X, X_k) = 1 - Dis(X, X_k) = 1 - \left(\sum_{i=1}^m w_i (x_i - x_{i,k})^2 \right)^{1/2} \quad (17)$$

$S(X, X_k)$ denotes the similarity between case X and X_k , $Dis(X, X_k)$ denotes the distance between case X and X_k , x_i denotes the descriptive value attribute of the i th attribute of the new case, $x_{i,k}$ denotes the descriptive value of the i th attribute of the k th case, m is the number of case attributes, and w_i is the weight of the i th feature attribute. The case teaching reflection and case library construction complete the categorization of the teaching resources of college Civics.

3. Analysis of the Results of the Construction of the Civic and Political Case Bank in Colleges and Universities

3.1. Improving the quality of Civics teaching

3.1.1. Evaluation of teaching quality

In order to verify the effectiveness of the reflective model of case teaching in college Civics class, the results of Civics teaching quality were evaluated through the training set and test set, and the collaborative filtering algorithm, PSO algorithm, BP neural network algorithm, back propagation algorithm and optimization algorithm were used for the analysis of the quality of teaching, and the results of the evaluation of the quality of different algorithms of Civics teaching are shown in Figure 3.

From the overall Civics classroom teaching evaluation results, the collaborative filtering algorithm's Civics teaching quality evaluation results are better than the other four algorithms, as follows:

1. The Civics teaching quality evaluation score of the collaborative filtering algorithm gradually increases from 1.5 to 3.8, the optimization algorithm increases linearly to 3.0 and then to 3.6, and the backpropagation algorithm maintains the Civics teaching quality evaluation score at about 3.5.
2. Collaborative filtering algorithm's Civics teaching quality evaluation results increased from 4.5 to 5.0 points, the PSO algorithm's Civics teaching quality evaluation hood score at 4.5 points, backpropagation algorithm's quality evaluation score at about 4.0 points.

It shows that the full use of the Internet background for case teaching research improves their own self-media various technical aspects so as to better bake the attraction and infectious force of case teaching. The content of the Civics class that is taught well is recorded and released to the network platform so that the Civics content can be shared for observation and learning, promoting the teaching level of Civics teachers in colleges and universities, improving the quality of teaching skills, and playing a driving role in optimizing the development of the Civics case teaching methods and approaches in colleges and universities.

3.1.2. Listening hours test

In order to further analyze the teaching effect of collaborative filtering algorithm in the context of the Internet, the selected college students were used as test subjects, and the length of a single course of Civics education resources under each type was set to be 45 min, and Table 1 shows different Civics teaching resources from A1 to A10.

Table 1: A1-A10 Different Ideological and Political Teaching Resources

Serial Number	Resource Name	Serial Number	Resource Name
A1	History Education	A6	Environmental Education
A2	Cultural Education	A7	Entrepreneurship Education
A3	Politic Education	A8	Legal Education
A4	National Education	A9	Patriotic Education
A5	Humanities	A10	Social Education

By separately verifying the favoritism of students of different grades to the Civics resources, the results of the case study teaching Civics in colleges and universities are shown in Figure 4. In the collaborative filtering algorithm's recommendation of different types of Civics education resources, all of them can be maintained at more than 20 minutes of listening time, indicating that college students in all grades have a high degree of favoritism for the recommended resources and can accept this type of Civics education. The listening time of the Civics course for first-year students is basically maintained at more than 10 minutes, the listening time of the Civics course for second-year students is maintained at about 20 minutes, the listening time of the Civics course for third-year students is maintained at about 30 minutes, and the listening time of the Civics course for fourth-year students is maintained at about 38 minutes. It shows that the collaborative filtering algorithm in the background of the Internet can not only meet the good

matching of the Civics education resources but also ensure that the students love the Civics courses and has a better recommendation effect, which can be put into the actual Civics teaching application. Teachers use the Internet to teach and create scenarios and learning environments so that the case of Civics and Political Science course teaching methods become flexible and diverse, breaking through the pattern of the inherent education system.

3.1.3. Score for the Civics Program

The collaborative filtering algorithm in the context of the Internet is used to calculate the score of the Civics class to match the actual scoring situation, and Table 2 shows the results of the Civics teaching similarity comparison experiment. The variance in the teaching direction in the Civics class in colleges and universities is 0.657, the standard deviation of the interaction willingness is 0.867, the extreme deviation in the communication situation is 0.822, and the mean value in the Civics score is 0.854. All the values are within 1, which indicates that the Civics class in colleges and universities carrying out the case study teaching method of teaching can be guided by the teaching content and objectives, and the status of the students' main body of learning can be respected. Utilizing the collaborative filtering algorithm in the background of the Internet to scientifically design the teaching links, attracting the attention of the student body to the teaching content and teaching links, combining extracurricular interactions with it organically, and jointly committing to the interactive teaching of Civics and Political Science classes to carry out smoothly.

Table 2: Comparison Results of Similarity in Ideological and Political Education

Content	Variance	Standard Deviation	Range	Mean Value
Teaching Direction	657	813	727	684
Willingness to Interact	723	867	688	746
Communication Situation	740	924	822	792
Ideological and Political Achievements	813	896	817	854
Knowledge Conversion	898	926	908	913

3.2. Case base performance validation

3.2.1. Model accuracy test results

In order to verify the effectiveness of the case base of the Civics classroom with collaborative filtering algorithm in the context of the Internet, taking the Civics course of one university as an example, 300 students were randomly selected among all students of all majors and grades in the school, using the model to assess the timeliness of the Civics course of the school and comparing it to the assessment results of the optimization method and the diversification method, so as to verify the effectiveness of the Civics course effectiveness, and after the After statistical analysis and processing, Figure 5 shows the accuracy test results of the case base of the Civics and Political Science course.

Figure 5(a) shows the accuracy test results of the case base in the Civics and Political Science course, and the method proposed by the collaborative filtering algorithm has the lowest error rate, which is controlled below 10%. It is followed by the optimization method with an error rate below 30%, and the worst accuracy is the diversification method with an error rate above 60%. As the number of samples increases, the collaborative filtering algorithm gradually increases and finally increases to 20%, and the other two algorithms are above 40%.

Figure 5(b) shows the results of the time-consuming test for the evaluation of the case base in the Civics course. Compared with the optimization-based algorithm and the diversification method, the collaborative filtering algorithm consumes the lowest time when performing the automated evaluation of the course, which is basically within 50 seconds. The optimization algorithm consumes less than 90 seconds for the automated assessment of the Civics course, and the diversified assessment consumes less than 80 seconds. When the number of samples is 200, the collaborative filtering algorithm consumes 43 seconds, and the

optimization algorithm's Civics course assessment time is 72 seconds. It shows that the collaborative filtering algorithm's automated assessment of the Civics course carries out course assessment with high accuracy and low time consumption, and the teaching of Civics courses in colleges and universities should continue to expand the new ways and methods of teaching Civics courses, explore the depth of the integration of the collaborative filtering algorithm with the teaching of Civics courses.

3.2.2. Increasing the rate of teacher-student interaction

In order to give full play to the interactivity in the Civics and Politics classroom, ignoring the inherent transformation of knowledge and beliefs in colleges and universities, and promoting the goal of educating people in the Civics and Politics classroom in colleges and universities. Using collaborative filtering algorithms to analyze the interaction of teachers and students in the Civics and Politics classroom, Table 3 shows the increased interaction in the Civics and Politics classroom in colleges and universities. It can be seen that:

1. In the importance of interaction in the Civics and Political Science course, the percentage of very important for Civics teachers is 66.28%, the frequency of more important is 1.6, the percentage of dispensable is 13.26%, and the frequency of not important at all is 4.0.
2. For students, the percentage of very important is 8.63%, the frequency of more important is 2.97, the percentage of generally important is 23.47%, and the frequency of not important is 1.11.
3. In terms of whether or not they frequently lead classroom interactions, the percentage of Civics teachers who frequently interacted was 32.58%, the frequency of occasional interaction was 4.3, the percentage of hardly ever interacted was 10.85%, and the frequency of never interacted was 7.1.
4. The percentage of students who interacted frequently was 5.06%, the frequency of occasional interaction was 1.33, the percentage of almost no interaction was 46.28%, and the frequency of never interaction was 1.15.

It shows that the Civics class in colleges and universities should take college students as the main body to carry out interactive teaching, and the design of teaching links should be supported by relevant Internet information technology so as to make the interactive teaching closer to the reality of contemporary college students, attract students' interest in interactive teaching and enhance their enthusiasm for participation, thus reflecting the effect of playing interactive teaching.

Table 3: Interaction in Ideological and Political Classrooms in Universities

Content	Variable Meaning	Teachers		Students	
		Frequency	Percentage	Frequency	Percentage
Importance of Classroom Inter- action	Very Important	5.6	66.28%	3.8	8.63%
	Important	1.6	16.78%	2.97	65.44%
	Generally Important	1.2	13.26%	1.03	23.47%
	Not Important	4.0	3.67%	1.11	2.69%
Guiding Class- room Interaction	Frequent Interaction	2.8	32.58%	2.2	5.06%
	Occasional Interaction	4.3	49.32%	1.33	22.89%
	Almost no Interaction	8.2	10.85%	2.19	46.28%
	Never Interact	7.1	7.26%	1.15	25.94%

4. Conclusion

In this paper, a collaborative filtering algorithm in the context of the Internet is used to find the adjacent attributes between different users by combining the personalized characteristics of college students. User preference data is collected in various forms, and the data set constraints are normalized to achieve similarity calculation and personalized recommendation of resources. The distance from other objects to the initial clustering center is calculated to reflect the feature attribute weights, and the forgetting curve of the

timeliness of students' interests is introduced to reduce the influence of the time decay factor incorporated into the time on the recommendation rules. The results show that the evaluation result of the quality of Civics teaching is 5.0 points, the listening time of the Civics course is maintained at about 38 minutes, the standard deviation is 0.813, and the time consumed in the automated evaluation of the course is within 50 seconds. Colleges and universities should pay attention to the case teaching method of Civics courses in the background of the Internet, use collaborative filtering algorithms to discover the problems in teaching and improve the teaching design in a more targeted way so as to ensure that the construction of the case base in Civics teaching is carried out effectively.

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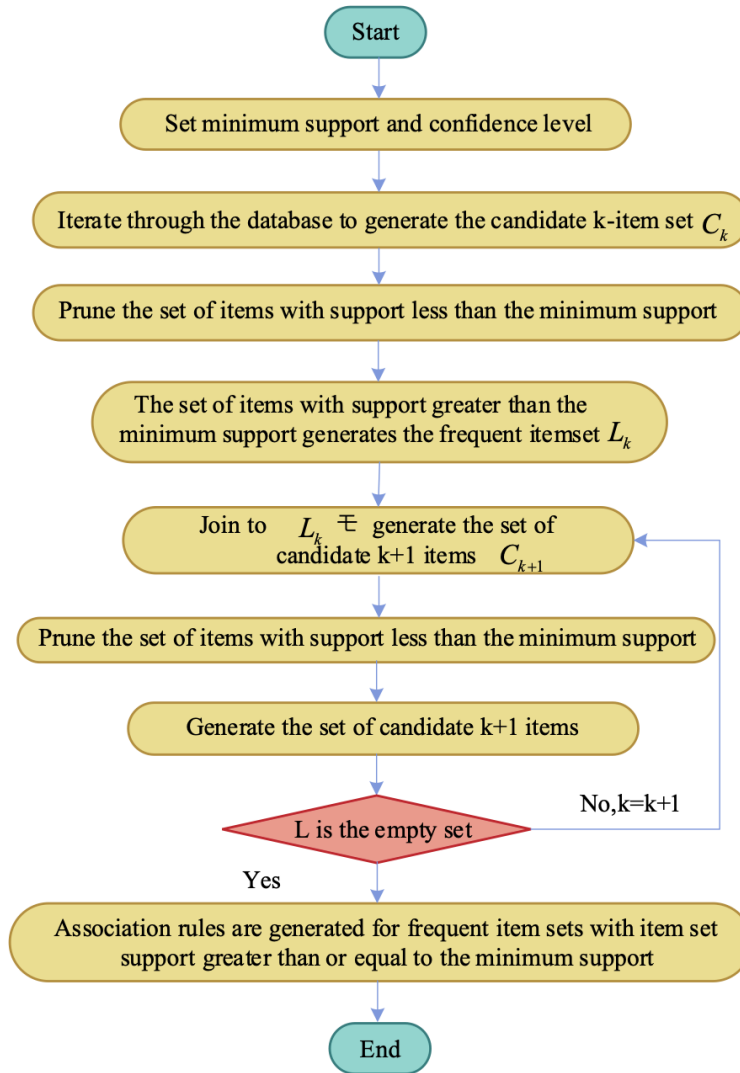


Figure 2: Collaborative filtering Algorithm Process

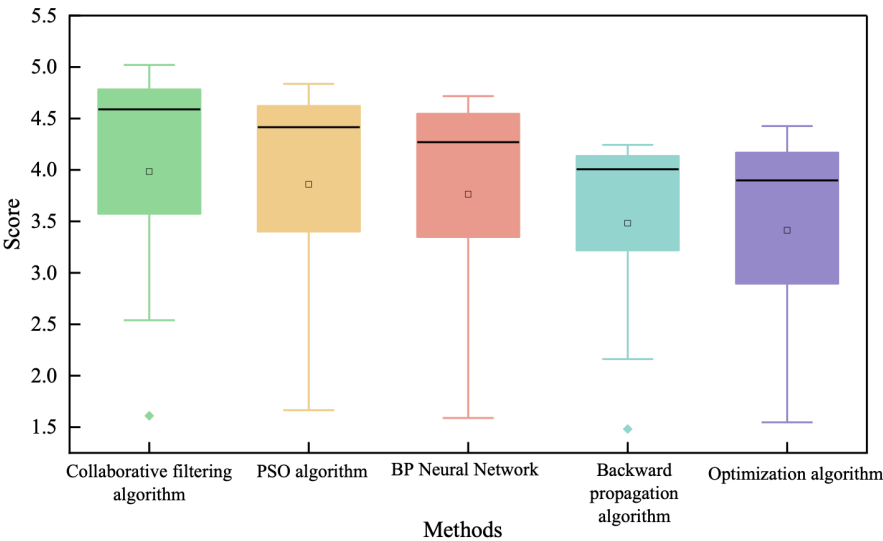


Figure 3: Evaluation Results of Ideological and Political Education Quality

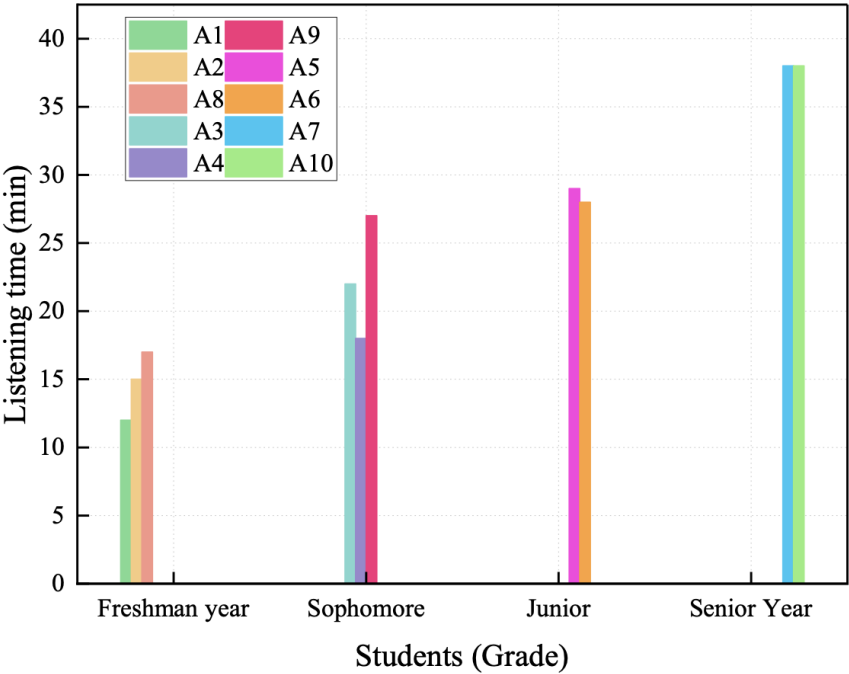
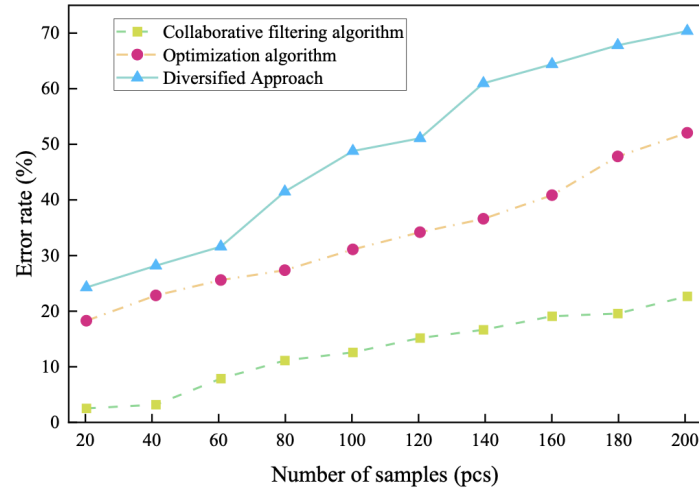
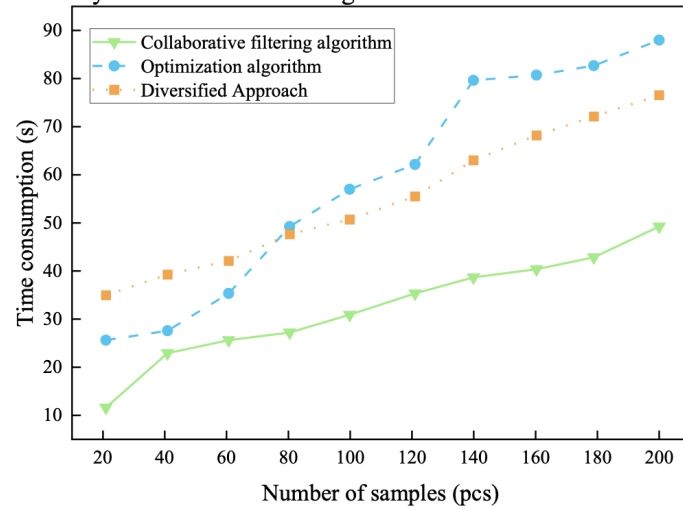


Figure 4: Case Teaching Results of Ideological and Political Courses in Universities



(a) Accuracy Test Results of Ideological and Political Course Evaluation



(b) Time-consuming test results of ideological and political course evaluation

Figure 5: Accuracy Testing of the Case Library of Ideological and Political Courses