Hindawi
Mobile Information Systems
Volume 2023, Article ID 9832072, 1 page
https://doi.org/10.1155/2023/9832072

Retraction

Retracted: Analysis of the Role of Decision Tree Algorithm in Art Education Based on the Background of the Internet of Things

Mobile Information Systems

Received 3 October 2023; Accepted 3 October 2023; Published 4 October 2023

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] Q. Wang, J. Wang, Y. Ye, and L. Chen, "Analysis of the Role of Decision Tree Algorithm in Art Education Based on the Background of the Internet of Things," *Mobile Information Systems*, vol. 2022, Article ID 1425525, 7 pages, 2022.

Hindawi
Mobile Information Systems
Volume 2022, Article ID 1425525, 7 pages
https://doi.org/10.1155/2022/1425525

Research Article

Analysis of the Role of Decision Tree Algorithm in Art Education Based on the Background of the Internet of Things

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Received 27 August 2021; Revised 7 October 2021; Accepted 21 March 2022; Published 22 April 2022

Academic Editor: Sang-Bing Tsai

In recent years, transportation, medical care, energy, and other fields have relied on a number of smart technologies such as the Internet of Things and cloud computing, and the degree of intelligence has continued to increase. As a key part of the future development of cities, education is facing tremendous pressure and challenges. How to use all kinds of smart technologies to promote the informatization of education and create a new era of smarter education is an important mission of current smart education. Decision tree classification is a frequently used technique in data mining. It has the characteristics of fast classification and high efficiency. It is not only used to analyze data but also to make predictions. Professional art education occupies an important position in college education. How to combine decision tree algorithms to develop targeted and effective professional art education and to strengthen the teaching reform and research method innovation of art design has become the current teaching work of colleges and universities. The purpose of this paper is to optimize the teaching mode of art courses in colleges and universities, improve the teaching effect of art classes, and realize the teaching goal of art courses. In this paper, art curriculum teaching experience and the reality of teaching research, through analyzing three local questionnaire surveys of college students, based on the principle of students' subjectivity from the topic content, organization form, evaluation mode of college art teaching in our student autonomy, initiative, and the role of creative mechanisms are discussed. According to the practical teaching activities of art courses conducted in this paper, the satisfaction degree of college students with art courses is up to 92%, which indicates that this experiment is still relatively successful and significant, and arouses students' subjectivity to some extent.

1. Introduction

In contemporary society, innovation is the most important driving force for development, and innovation in any field is an eternal topic. Innovation covers a wide range, and in the field of education, teaching, reform, and innovation also need to be paid attention to [1]. Our country education enterprise appears early, has the very rich experience, when carrying on the education innovation, and also has the solid foundation [2]. In the current era, with the rapid development of China's education, there are many new problems in education reform, which hinder the initiation of education. As for the teaching of performing arts, there is still a big gap between China and western countries, which requires the reform and innovation of performing art teaching based on advanced experience [3, 4]. Decision tree generation is the process of generating a decision tree from a set of training samples. In general, the training sample data set is a data set that has a history and a certain degree of comprehensiveness according to actual needs and is used for data analysis and processing. Use the data in the new sample data set (called the test data set) to verify the preliminary rules generated during the decision tree generation process, and prune those branches that affect the accuracy of the prebalance. This also applies to the art teaching process.

Campbell and Lee linked experiential learning and performing arts with the public pedagogy of visual/visual negation and showed how the teaching method adapted to patients with visual impairment by using performance as a teaching method [5], as well as how to make performing arts easier to understand, to promote knowledge

[6]. Although visual support exceeds other senses and is increasingly important for digital and virtual reality as a major component of student life [7], there has never been a time to visit the meaning through technical intermediaries, so the expanded use of all senses of art, as suggested, responds. Relying on all senses becomes a more inclusive aspect of public pedagogy [8]. Congdon explores a three-week adult art education course for women at the Al Baylasan Art Centre in Saudi Arabia [9, 10]. Latimer looks at architecture students at Queens University's art education in information retrieval for their undergraduate and graduate degrees [11, 12] as well as the growth of new services brought by the improved awareness of students' needs [13, 14]. The aim of Nooshin and Adis is to investigate the impact of Montessori teaching on IQ in five years old [15, 16].

Life is the source of artistic creation; all art comes from life, but compared with life, it belongs to the ideology beyond life. It is impossible to achieve high-quality art education through "spoon-feeding" education. Only through a long period of imperceptible immersion can students understand the essence of art and realize the goal of art education. In this paper, art curriculum teaching experience and the reality of teaching research, through analyzing three local questionnaire surveys of college students, based on the principle of students' subjectivity from the topic content, organization form, evaluation mode of college art teaching in our student autonomy, initiative, and the role of creative mechanisms are discussed [17, 18].

2. Proposed Method

2.1. Decision Tree Algorithm. The CLS learning algorithm is an early decision tree algorithm. The main idea of the algorithm is to first construct an empty decision tree and then modify the decision tree by adding decision nodes until the constructed decision tree can correctly classify the training examples. Many subsequent decision tree learning algorithms are improvements and updates to the CLS algorithm. Quinlan proposed the well-known ID3 algorithm in 1986. The algorithm is based on information theory and uses information and information gain as the measurement standard to realize the induction and classification of data. Since the algorithm can only handle discrete attributes, C4.5 after it is an algorithm that can handle continuous attributes. In addition, there are scalable decision tree algorithms in data mining such as SLIQ/SPRINT.

In the face of data mining tasks on massive data sets, the effectiveness and scalability of decision tree algorithms are issues worthy of attention. In the decision tree classification algorithm introduced earlier, the training set is limited by memory capacity. In order to improve the scalability of the algorithm, data sampling and data slicing are the main strategies for early construction of decision trees, but these strategies reduce the accuracy of classification.

SLIQ algorithm and SPRINT algorithm are mainly used in very large training sample sets. The SLIQ algorithm uses two technologies, "presorting" and "breadth first" in the process of constructing a decision tree. When presorting, use several disk-resident attribute tables and a memory-resident class table. Breadth first is to use the shortest description length for pruning when generating decision trees. The scalability of SLIQ is limited by the data structure of the resident memory, while the algorithm is not limited by the memory, and the parallel implementation of the algorithm is easy and efficient, which further enhances the scalability of the algorithm. The attribute list causes the storage cost to be higher than before, and the node partition also creates a hash table, which increases the burden on the system.

2.2. The Teaching Status of Art Courses in Colleges and Universities and the Significance of Implementing Teaching Reform. For any form of artistic expression, life is the prototype; art is formed on the basis of life with a certain degree of innovation added. It can be said that art originates from life and is higher than life. In the stage of cultivating talents in colleges and universities, the cultivation of students is not a matter of a day, especially for art education, which needs a long period of artistic edification. It is worth mentioning that this process should also pay attention to the cultivation of students' artistic temperament and artistic accomplishment in the process of imperceptibly and then require students to master the basic theoretical knowledge of art and professional art skills.

2.3. Existing Problems in Art Performance Teaching in Colleges and Universities

2.3.1. The Teaching Method Is Rigid and Old and Lacks Diversity. The degree of students' learning and understanding of a course is constantly deepened, and the rigid teaching mode often leads to students' contempt and weariness in the process of deepening their learning, thus affecting the improvement of classroom teaching efficiency. On the other hand, a single teaching model cannot enable students to understand and comprehend vocal music performance from multiple perspectives, to produce a one-sided understanding of learning. Therefore, for the current vocal music performance, art teaching in colleges and universities must take a unique way of art teaching and innovate a more suitable teaching mode of vocal music performance, to improve the timeliness of vocal music performance teaching.

2.3.2. The Teaching Level of Art Teachers in Universities Is Low. Teachers are the organizer and guide of classroom teaching activities and the key to the development of the whole teaching activities. Therefore, it can be said that one of the factors that have the greatest influence on teaching results in the teaching process is the personal quality and professional level of teachers. First, in terms of personal quality and many teachers lack the sense of responsibility in the process of teaching, the performing arts is a practice, and understanding of the course attaches great importance to the students themselves, but many teachers lack of sense of responsibility and patience; teaching in the teaching process of usual did not pay attention to students and cultivate a good relationship between teachers and students, lead to the teachers on students' learning situation, and existing

Table 1: Characteristics statistics of experimental data.

Attribute	Group	Number of samples	Percentage (%)	Sum
Gender	Male	208	42.19	493
	Female	285	57.81	
Professional	Music and dance	133	27	493
	Drama and film and television	128	26	
	Fine art class	130	26.37	
	Design class	102	20.63	
Grade	In grade one	207	41.99	493
	In grade two	165	33.47	
	In grade three	121	24.54	

problems are not very clear; the students have problems and seldom take the initiative to ask teachers for help. The second is the professional level of teachers.

3. Experiments

3.1. Experimental Data Sources. Art learning methods include school art teaching method, classified art teaching method, and art topic teaching method. Art teaching method is to study the principles and methods of art teaching. The research objects include the tasks and purposes of art teaching, teaching and learning methods, methods, teaching content, etc. Aiming at the reform and research of art teaching methods in colleges and universities, this paper has carried on the relevant teaching research in the teaching process. Conduct teaching curriculum experiments in the art major of three local universities, and randomly distribute 500 questionnaires to students in the art major of the grade of three universities for experimental questions and answers. A total of 493 effective questionnaires were collected. It examines the content and form of the overall value. The teaching practice of college students' teaching courses improves their abilities, teaching interactivity, teaching evaluation, and cognition of subjects and contents. These students all have deep contact with art and love art very much. The main investigations are conducted around the three elements of teachers, students, and classrooms in the art teaching classroom, and the data are obtained from different angles without getting the level. The subjects of the survey are mainly students from art majors selected from three universities. Each school has different teaching methods, different teaching concepts, and different teacher levels, and students are unique. Therefore, the subjects and subjects of the survey are more representative and targeted. The experimental data obtained also meets the requirements of diversity.

3.2. Experimental Design. The variables involved and measured in this study include the overall value of practical teaching of art courses, ability improvement, teaching interaction, teaching evaluation, subject content, and other aspects of cognition. This study collected data through questionnaires. A total of 30 questions were given, and the answers were divided into four categories: fully yes, relatively yes, not very yes, and no yes. The score for positive topics ranged from high to low, 4 to 1. As the scope is relatively small, the difficulty of the questionnaire survey is reduced. This questionnaire is distributed through the network, which increases the rapidity and convenience of the questionnaire survey. The questionnaire tries to convert professional terms into more popular and easy-to-understand language. The design of the questionnaire is moderately difficult and conforms to the understanding ability of college students, which reduces the generation of invalid questionnaires and improves the effective recovery rate of questionnaires. Statistical analysis and experimental data characteristics are shown in Table 1. The art major involves details as shown in Figure 1.

4. Discussion

4.1. Based on the Investigation of "Art Teaching Methods in Colleges and Universities"

4.1.1. The Teaching Staff of the School in Recent Three Years. The situation of teachers in the school in recent three years is as follows: general situation, age structure, and educational background structure. The specific results are shown in Figures 1 and 2 and Table 2.

From Figure 3, it can be concluded that in terms of art college, the ratio of students to teachers in the recent three years is about 9 : 1, which indicates that the workload of teachers is not small. Young teachers account for more than half of all teachers, especially in some majors and a few public basic courses. From the perspective of educational background structure, the proportion of teachers with master's degree and doctor's degree is still less than 50%, and the educational background of teachers is still generally low.

Although there are increasingly professional qualification examinations in art design and music in recent years, the evaluation standards of teachers in Chinese universities are still based on their professional knowledge, learning, and research. However, most teachers lack skills in

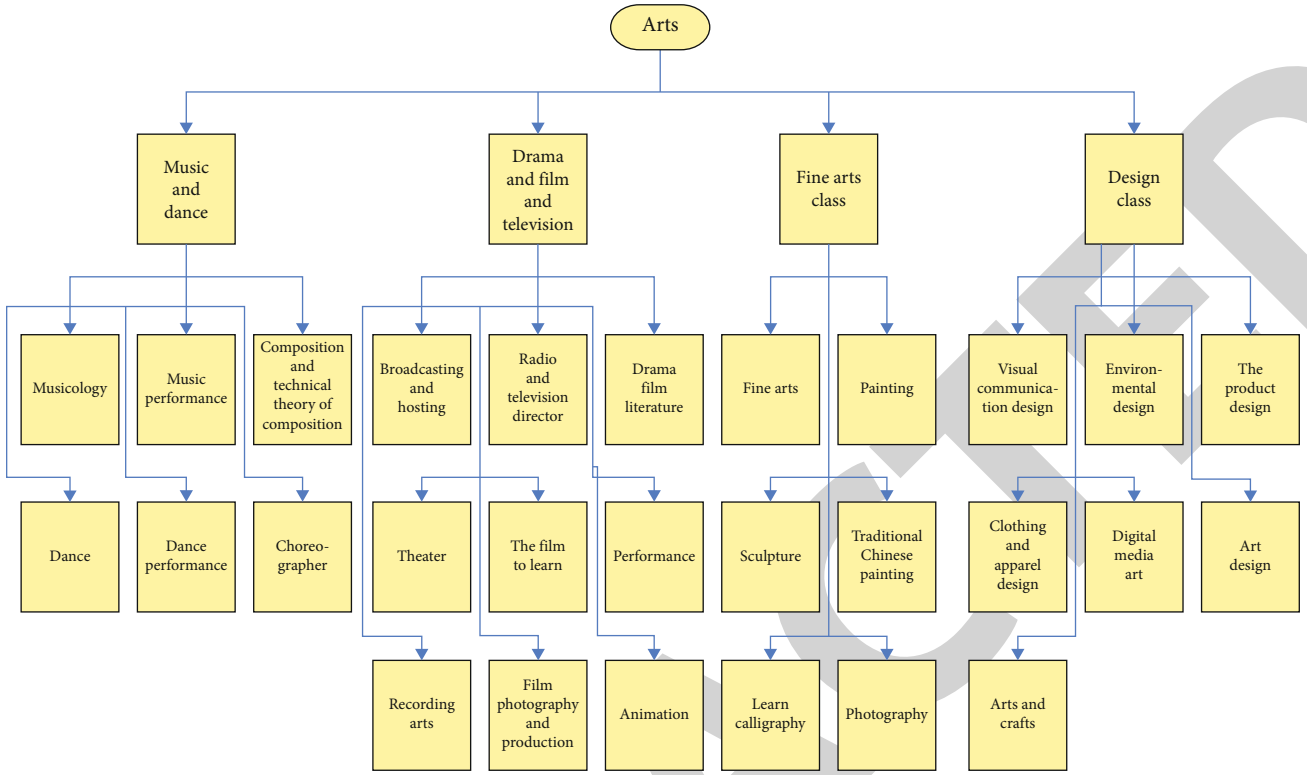


Figure 1: Art major involves classification.

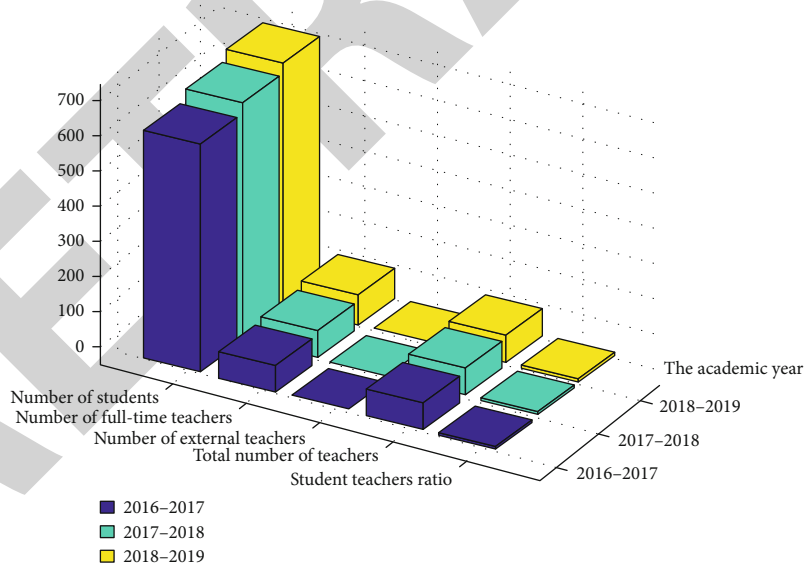
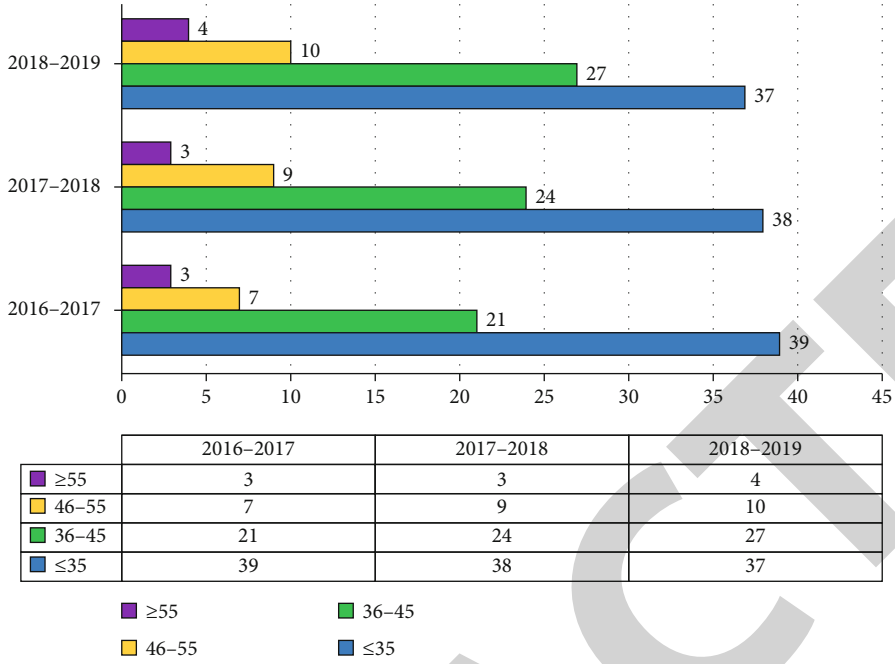


Figure 2: The statistical table of the teacher-student ratio of the school of art in the past three years.

Table 2: Educational background structure of faculty of art college of this university in recent three years.

The academic year	The total number of teachers	Dr.		A master's degree		Undergraduates	
		Number	The proportion (%)	Number	The proportion (%)	Number	The proportion (%)
2016-2017	70	2	3	28	40	39	55.7
2017-2018	74	4	5.4	31	41.9	38	51.34
2018-2019	78	5	6.4	35	44.87	38	48.72



	2016–2017	2017–2018	2018–2019
≥55	3	3	4
46–55	7	9	10
36–45	21	24	27
≤35	39	38	37

Figure 3: The age structure of faculty in the school of art in the past three years.

education and teaching, which makes teachers unable to get more comprehensive professional guidance. On the other hand, teachers with strong professional practice abilities are still generally absent in colleges and universities. As the source of college teachers in China is mainly art students graduated from colleges and universities, few teachers with practical experience are hired from the front line of the industry, and most of the current teachers are not likely to take part-time jobs in some social industries, leading to less professional practical experience of college teachers, which directly affects the cultivation of applied art talents.

4.2. Countermeasures for Improving Art Teaching Methods in Colleges and Universities

4.2.1. Survey Data. The survey data confirmed that the practical teaching of the art course is playing a positive role in giving full play to art students in colleges and universities (see Figures 4 and 5).

The above survey results show that first of all, most college students show interest in practical teaching activities and are willing to participate in practical teaching. In terms of curriculum, situational teaching can attract students' love and attention. Secondly, most college art students realize that rich art courses play a special role in promoting students' learning. Practical activities can not only promote the understanding of theory but also cultivate students' learning autonomy, exercise their ability to solve practical problems independently, develop good learning habits, and enhance students' creativity.

It can be seen that we should strengthen the reform of the teaching methods of art courses in colleges and universities, carry out teaching based on the combination of theory and practice, and enable vocational students to solve theoretical problems while respecting and subjectivity of students.

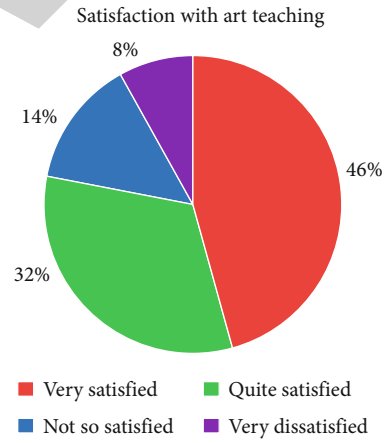


Figure 4: Satisfaction degree of art teaching.

4.2.2. Effective Countermeasures for the Teaching Reform of Performing Arts in Colleges and Universities. In view of the current problems in the teaching of vocal music performing arts in colleges and universities, vocal music teachers should attach great importance to the actual teaching situation and students' learning ability. On this basis, vocal music teachers should speed up the research on vocal music teaching activities, update the educational and teaching concepts, realize the reform of teaching methods, improve the teaching quality and teaching efficiency of vocal music performing arts

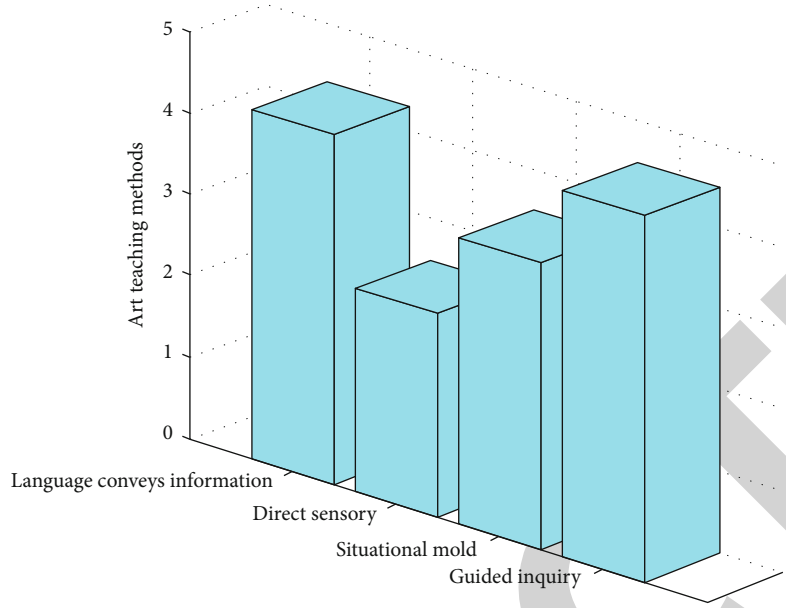


Figure 5: Proportion of teaching method classification.

courses, and enhance the effectiveness of vocal music teaching. Vocal music teachers should help students have solid theoretical knowledge of vocal music and strong singing ability, help students improve their professional ability, and enable them to perform music works better.

5. Conclusions

To sum up, it takes a long time for art teaching to have a good teaching effect. Taking courses during the school year can only help students get a preliminary understanding of the art and learn how to learn the course. Students need to master the vocal performance art experience during a long study for the current status of the course teaching in our country, usually due to the students' learning achievement in the first place, ignores the cultivation of students' creative ability, therefore, in the teaching activities to inspire students' potential, do real according to their aptitude. The teaching of art is often not happening overnight; as years of accumulation, the school of learning also just let students to understand the art, to really in vocal music performing arts of this course of study also needs a long way, in our teaching of vocal music performing arts, often only pay attention to students' learning situation and the bound creativity of students, so in the process of teaching must pay attention to students' potential, according to their aptitude.

Data Availability

This article does not cover data research. No data were used to support this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Acknowledgments

The research is supported by the 2020 Hunan Province Social Science Fund (Project No.: 20YBA008), the Hunan Province Teaching Reform Research Program (Project No.: HNJG-2020-0288), and the 2019 Hunan Province Social Science Fund (Project No.: 19YBA011).

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