Hindawi
Mobile Information Systems
Volume 2022, Article ID 8077157, 10 pages
https://doi.org/10.1155/2022/8077157

Research Article

Application of Experiential Education Based on Modern Teaching Concept in College Management

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Received 29 June 2022; Revised 2 August 2022; Accepted 5 August 2022; Published 11 October 2022

Academic Editor: Santosh Tirunagari

Experiential teaching is based on modern teaching approaches, including the construction of knowledge, the generation of emotion, and the development of ability through students' personal experiences. Compared with traditional teaching, it has characteristics of autonomy, practice, and interaction. This is conducive to promote students' autonomous learning, speeding up the transfer of knowledge and experience, and improving students' personal comprehensive ability. There are various forms of experiential teaching methods in management teaching, but they should be selected reasonably according to the teaching contents. In the actual application of experiential teaching, teachers should carefully design teaching plans, pay attention to comments and summaries, and ensure the unity of theoretical teaching and experiential learning. This research work investigates experiential teaching based on modern teaching concepts and explores three application mechanisms of the experiential teaching method in the first stage. In the second stage, it proposes an algorithm to evaluate the promotion of experiential education based on modern teaching concepts in college management. The proposed algorithm is named improved gray wolf optimization-Back Propagation (IGWO-BP). IGWO balances the full search and the local search through a nonlinear convergence factor and makes the leadership gray wolf dynamically guide the population forward through a variable proportional weight. Then, IGWO is used to optimize the BP network to improve evaluation accuracy and convergence speed. Compared with the state-of-the-art machine learning methods, the proposed mechanism achieves the highest accuracy of 94.6% and an F1 score of 91.3%.

1. Introduction

The traditional teaching method of management is dominated by teachers' classroom teaching, which has obvious shortcomings. The creation of the teaching situation is to reproduce the actual things or the relevant background of the knowledge expressed in the book in an intuitive way. According to the management situation created by the teacher's oral language, it is difficult to stimulate a desire to learn with emotion; it is limited to the rote memorization of words. The experiential teaching mode with modern teaching concepts attaches great importance to the dominant position, and it emphasizes students' classroom participation and emotional experience, which is conducive to the realization of the teaching goal of cultivating strong practical ability in management. There are a variety of formative approaches that can be used to enhance the student experience in the actual teaching of management courses. This is of great significance for cultivating management talents that are needed by enterprises, have high comprehensive ability, and can solve practical problems of enterprise management [1–5].

Experiential teaching based on the modern teaching concept is to present the teaching knowledge by creating a realistic situation according to self-knowledge as well as learning rules in the teaching process and apply the complex and abstract theoretical knowledge and skills to practice. This enables students to gain insight into the process, lighten their own experience into experience, and have a deeper understanding and understanding of knowledge. Experiential teaching attaches importance to students' comprehension of learning content, attaches importance to learning methods, promotes rational learning knowledge and skills, and creates healthy personality charm. Its purpose is to enable students to improve their management awareness and management ability [6–10].

First, experiential teaching can stimulate interest and improve innovative ability. Experiential teaching not only emphasizes the active participation of students to stimulate interest but also emphasizes teachers guide students to understand society and enter society through various practical activities. In experiential teaching activities, students experience theoretical knowledge through active participation, which in turn drives students' learning enthusiasm and initiative. Expanding students' theoretical knowledge will stimulate students' creativity. In the teaching process, students' autonomy will be exercised, an atmosphere of independent thinking will be created, and students will be encouraged to use their own thinking to complete the entire teaching activity. Secondly, experiential teaching can improve the rigor of teaching content and conform to the nature of the discipline. Management is a multi-disciplinary interdisciplinary course with strong practicality, and it is particularly important to highlight its practicality. Experiential teaching mode is based on theoretical knowledge, appropriately introducing cutting-edge knowledge to broaden students' knowledge, and through experiential teaching, let students enter the society. This allows students to create teaching situations by actively observing, comparing, and summarizing destinations, enabling them to experience knowledge happily and actively and to construct and enrich their own knowledge structures in all aspects. This is an effective teaching model that enhances students' learning initiative by interacting with the team. As the international community communicates with teachers, they make correct assessments and revisions to their own assumptions, thereby improving the rigor of teaching content. Finally, experiential teaching can improve the scientific nature of teaching methods and meet cognitive needs. Different from the traditional method, experiential teaching emphasizes interaction and pays attention to the whole process of teaching. Through teacher guidance and student practice, the theoretical knowledge is integrated into social practice; students can melt, absorb and experience theoretical knowledge in the classroom through multimedia cases, social practice investigation, project practice, and other experience methods. The core of experiential teaching: Applying experiential learning in management disciplines to other aspects of learning and life not only satisfies students' thirst for knowledge but also expands students' knowledge skills and social skills. With the rapid development of the Internet today, college students, as the mainstream group of network applications, have undergone profound changes in their knowledge sources. In the experiential teaching method, teachers no longer simply impart theoretical knowledge but need to guide students to think deeply, help students find problems, and analyze problems and try to solve them. It is also in line with the cognitive needs of contemporary college students to experience and verify knowledge through their own perception and cognition [11–15].

Experiential teaching methods in management require the features of autonomy, practice, and interaction. It is needed to promote students' autonomous learning to speed up the transfer of knowledge and experience. There are various methods for experiential teaching methods in management teaching, but there exists no proper mechanism for selecting a reasonable method according to the teaching contents. This research work will investigate and propose a mechanism named improved gray wolf optimization back propagation (IGWO-BP). IGWO-BP is used to evaluate the quality impact of experiential education based on modern teaching concepts in university management.

2. Related Work

Joshi et al. [16] define the concept of experiential teaching, which is an educational concept and method that guides students to actively participate in accordance with students' cognition to cultivate students' healthy personalities. According to Laditka & Houck [17], experiential teaching is the introduction or development of distinct situations and atmospheres in the teaching process to adapt to and awaken students' emotional experiences in accordance with the teaching content. Teaching knowledge quickly and correctly helps students absorb it while also promoting an approach that helps students develop their psychological processes in an integrated manner. Rocha [18] pointed out that experiential teaching means that teachers obtain professional growth and maturity through the experience of teaching. Developing in experience: experience is the best way and means for the development of the main body of students. For the purpose of achieving a predetermined educational goal, Koutsoukos et al. [19] believe in experiential education as an educational approach that enables students to gain understanding and construct knowledge through the use of personal experience. Sojka & Fish [20] believe that experiential teaching cannot be simply defined as a teaching mode or teaching method. In addition, it is also an innovative teaching idea that promotes the all-round development of students' personal qualities and is an internal basic requirement for implementing the value concept of quality education. Experiential teaching not only is concerned with how much knowledge is acquired in teaching but also pays attention to the development of various qualities such as individuality and innovation. Beausoleil-Morrison [21] believes that experiential teaching is not simply imparting knowledge or simply doing small experiments but a more complex practical experience. This requires teachers to create a more reasonable situation so that students can be immersed and experienced. Different knowledge requires different teaching situations. Teachers can activate the classroom atmosphere and guide students to learn independently through group discussions, simulated situations, and other methods. Chiu et al. [22] propose that it is easy to forget what is said from the mouths of others, but it is usually memorable and more emotional than what one has experienced. If experiential teaching wants to play a better role, it is significant to notice the fact that created situation must be consistent with the actual life and cognitive laws of students so that they can be immersed in it faster and better. Hill [23] pointed out that the characteristics of experiential teaching mainly include respecting the uniqueness of life, understanding the generative nature of life, being kind to the

autonomy of life, caring for the integrity of life, and integrating the truth, the good and the beautiful.

Berte & Jones [24] believe that experiential teaching transforms the teacher as the main body in the past into the student as the main body. The teacher is no longer a pure knowledge lecturer but plays the role of classroom designer, guide, and inspiration. Experiential teaching is rooted in real life and concerned about the emotional experience of students during the whole learning process; students can deeply appreciate the meaning of learning. Experiential teaching emphasizes that students actively participate in teaching. By participating in the formation process of understanding knowledge, they can generate corresponding emotions and exercise their own abilities. Mason & Arshed [25] pointed out that experiential teaching allows students to experience knowledge in the process of experiencing a teaching situation, and obtain corresponding emotional and value experiences, so as to improve the effectiveness of teaching. The direct purpose of using experiential teaching in the classroom is to improve the effectiveness of teaching activities. Dawes [26] pointed out that the characteristics of experiential teaching, from the perspective of the subject, have experience, subjectivity, and individual differences. From the process point of view, it has generative, meaningful, silent, and interactive interaction. From the point of view of purpose, it has life development, emotional purpose, and life practice. In terms of form, it is open. Wilsey et al. [27] believe that experience brings learners intuitive perception, and individuals have differences in the same experience activities, and there are corresponding emotional expressions. Dailey et al. [28] believe that this teaching form reflects the subject's own personal experience and a new interaction process. The whole teaching activity is realized in the corresponding situation, and students form a certain emotional response after experiencing the object. Kotval [29] pointed out that experiential teaching is conducive to promoting students' positive emotions, ensuring students' subject status, cultivating students' innovative spirit and practical ability, and is a good way to improve students' learning effectiveness. Fan et al. [30] studied the necessity of experiential teaching based on the importance of experience. In the literature [31, 32], various methods have been used which can equally likely be used for improving teaching quality in an educational environment. It believes that experience is the basic way of human survival and development, and only through this comprehensive psychological activity will the memory be profound. Jarmon et al. pointed out that experiential teaching requires high comprehensive ability and knowledge of teachers, and most teachers currently do not have such ability.

Autonomy, practice, and interaction are important features of experiential teaching methods in management. It is desired to promote students' autonomous learning to speed up the transfer of knowledge and experience. In the literature, there are various techniques to handle experiential teaching methods in management teaching, but there exists no proper mechanism for selecting or suggesting the best method according to the teaching contents. This research work investigates experiential teaching methods in management teaching and proposes a mechanism named improved gray wolf optimization-back propagation (IGWO-BP). IGWO-BP is used to improve the quality impact of experiential education based on modern teaching concepts in university management.

3. Method

First, this work analyzes the meaning of experiential teaching with modern teaching concepts and summarizes and analyzes three application methods of experiential teaching method. Secondly, this work proposes an IGWO-BP algorithm to evaluate the promotion of experiential education based on modern teaching concepts in college management.

3.1. Application and Construction of Experiential Teaching Method. The application methods of experiential teaching method used in this work include situational simulation teaching method, case teaching method, and management game method. The scenario simulation teaching method is based on students' traditional knowledge and experience as the basis of new knowledge. It breaks traditional thinking and constructs a new knowledge system by deliberately creating an atmosphere and situation of management activities. This is based on students' knowledge points to discuss and explore a certain management theory, collect cases and related materials from practice, and formulate situational simulation experiments suitable for students. This enables students to use vivid teaching simulation of situational simulation experiments. In the teaching simulation, students can play different roles so that their personalities can be developed to the greatest extent, and they can better guide them to explore the ideas of knowledge in practice so as to stimulate students to have a strong interest in learning. It applies social management activities to the classroom, allowing students to have a larger operating space and increasing their interest in learning. Case teaching is with the construction of students' awareness of the situation, taking students as the main body; teachers should play a good auxiliary and guiding role. This allows students to collect data and conduct careful analysis and practical verification of it. Then conduct active discussions, and make practical and effective expressions based on their own subjective consciousness and knowledge, and experience. Management game method is also an important part of experiential teaching, which is mainly a teaching method through game-based teaching thinking mode. The management game method effectively introduces some relative elements in the game into the teaching, which enables the students to learn methods in the game mode. In a sense, the management game method is a new teaching method. The whole process is similar to a game, which requires a series of processes, from game preparation and theoretical learning to practical operation. While taking students as the main body, teachers need to be responsible for guiding and supervising the whole process of game organization and game maintenance management. This method improves interest in teaching and deepens comprehensive understanding.

Management, as a discipline that focuses on practice and application, aims to cultivate managers with comprehensive qualities such as communication ability, collaboration ability, and innovation ability. After a relaxed and pleasant classroom, students may only have fragmented memories of their theoretical knowledge of management. The design of management experiential teaching mode needs to take the basic teaching content as the main line, rely on the existing teaching resources, and use a variety of teaching forms to design a multi-directional interactive teaching plan. The first is the design of teaching goals. The design of teaching goals of experiential teaching emphasizes the motivation of students to learn independently through simulation of scenarios, role-playing, participation in games, and events inside and outside the school. The second is an organization of teaching resources. In order to promote the experiential teaching method, teachers must provide students with many resources for students to explore and learn independently based on the progress of the course and their understanding ability of students. At the same time, the specific tasks of each chapter are arranged to ensure that each student can participate prepared and confidently in the specific implementation process. The last is the design of teaching evaluation. The scientific evaluation system is the baton. Each learning activity should have specific and clear evaluation indicators and evaluation standards. Self-evaluation and mutual evaluation are combined, and teachers analyze the evaluation results in the classroom. On the one hand, the weak links of students can be found and then targeted fir improvement On the other hand, teachers can also evaluate the teaching effect accordingly and adjust the teaching content and methods in time.

3.2. BP Network and GWO Algorithm. According to the connecting method of neurons, ANNs can be split into feedforward and feedback neural networks. ANNs can also be divided into unsupervised and supervised. A back propagation (BP) network is a kind of artificial neural network. Error back-propagation is used to train the multilayer feedforward neural network. In addition to being one of the most extensively used neural networks, it is a tutor learning neural network. There are three layers in a BP network: an input layer, a hidden layer, and an output layer. Kolmogorov's theorem states that when the number of nodes in the hidden layer is large enough, a three-layer BP neural network can approximate any nonlinear continuous function with any degree of precision across an infinite set. The basic structure of the three-layer network is demonstrated in Figure 1.

The activation function of the hidden layer adopts the sigmoid function. The value range of input is negative infinity to positive infinity, and the output range after activation is (0, 1). The function has very good symmetry; when the input exceeds a certain range, the function value will be insensitive to the input.

$$\text{Sigmoid}(x) = \frac{1}{(1 + \exp(-x))}. \tag{1}$$

The forward propagation process of BP can be summarized as the following formula:

$$\begin{aligned} a_j &= f\left(\sum_i w_{ji} x_i + b_j\right), \\ y_k &= \sum_j w_{kj} a_j + b_k. \end{aligned} \tag{2}$$

The error function needs to be defined in the back-propagation of BP

$$E = \sum_m \sum_n \left(y_n^m - o_n^m\right)^2. \tag{3}$$

The back-propagation weight and threshold update process are

$$\begin{aligned} w_{\text{new}} &= w - \eta \Delta w, \\ b_{\text{new}} &= b - \eta \Delta b. \end{aligned} \tag{4}$$

The standard BP network adjusts the weights and thresholds for the hidden layer and output layer according to the gradient descent algorithm, and its derivation process has strong reliability and versatility. Although the BP network has strong nonlinear mapping ability, high self-learning ability, and adaptive ability, it still has some limitations. The number of iterations and the final weights and thresholds vary greatly between different training. The training of the network relies on randomness and is prone to local minima. As the number of iterations increases, the convergence efficiency becomes slower, the network structure is difficult to determine, and the generalization ability is relatively poor.

The setting of the initial weights and thresholds of the BP network has a great influence on the convergence and convergence speed of the network. In the design of the BP network, the initial weights and thresholds are randomly initialized. Inappropriate values may cause the network to fall into a local optimum and fail to converge to the global optimum. The gray wolf algorithm has the advantages of simple operation and few parameters, so the gray wolf algorithm can be used to optimize the initial weights and thresholds of the BP network. Use the optimized initial weights and thresholds to train the BP network to improve the performance of the network.

GWO is an optimization search method inspired by the prey activity of gray wolves, so it belongs to a meta-heuristic algorithm. It simulates the social hierarchy mechanism and hunting behavior of gray wolf groups in nature. The GWO algorithm is a relatively new intelligent algorithm with advantages over other algorithms, such as simple structure, few parameters, and strong operability. In addition, it has strong global search ability, strong convergence performance, and easy implementation, and it can be easily combined with other algorithms to obtain better optimization performance. The mathematical model of the gray wolf algorithm can be divided into four parts, which simulate the behavior of wolf group hierarchy, tracking prey, surrounding prey, and attacking prey, respectively.

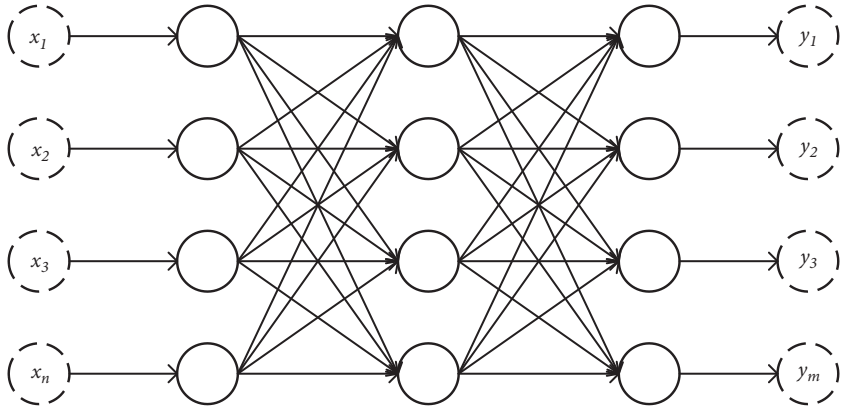

Figure 1: Back propagation (BP) network.

The gray wolf strictly abides by a social domination hierarchy. When designing the gray wolf algorithm, the gray wolf hierarchy is first simulated. According to the fitness value of each gray wolf, gray wolves can be divided into four levels. Mathematically simulate the process of surrounding the prey as

$$\begin{aligned} A &= 2ar_1 - a, \\ C &= 2r_2, \\ D &= \left|Cx_p(t) - x_i(t)\right|, \\ x_i(t+1) &= x_p(t) - AD, \\ a &= 2 - \frac{2t}{t_{\max}}. \end{aligned} \tag{5}$$

To simulate the hunting activities of gray wolves, it is assumed that the three solutions are more able to obtain potential information on the location of the prey. After each gray wolf is updated, the fitness value of each gray wolf is calculated, and the three solutions with the smallest fitness value so far are selected as the current wolf position. The next generation of gray wolves uses the three solutions as the traction to update the position of the individual.

$$\begin{aligned} x_1 &= x_\alpha - A_1\left|C_1 x_a - x_i\right|, \\ x_2 &= x_\beta - A_2\left|C_2 x_\beta - x_i\right|, \\ x_3 &= x_\delta - A_3\left|C_3 x_\delta - x_i\right|, \\ x_i(t+1) &= \frac{(x_1 + x_2 + x_3)}{3}. \end{aligned} \tag{6}$$

3.3. IGWO-BP Algorithm. GWO is gaining popularity as a new form of swarm intelligence optimization algorithm because of its simplicity in parameter configuration and superior optimization results. Although it has the advantage of being simple to fall into a local optimum in the later stages, it also has the disadvantage of being sluggish to convergence, like other swarm intelligence optimization algorithms. This work balances global search and local search through a nonlinear control parameter (NLCP) strategy and dynamically guides the population forward through a variable proportional weight (VPW) to speed up the algorithm convergence speed and avoid local optimum.

In the swarm intelligence optimization algorithm, it is very important to coordinate the global search and the local search. Global search means that the swarm needs to explore a wider search area to avoid the algorithm getting stuck in a local optimum. The local search means performing a fine search on some areas of the population, which has a great influence on convergence speed. Only when the swarm intelligence optimization algorithm can coordinate global search and local development well can it have better robustness and faster convergence speed.

The parameter A of the GWO algorithm is important in coordinating global search and local search. The value of parameter A changes as the control parameter a changes. Parameter a decreases linearly from 2 to 0, but the convergence process of the gray wolf algorithm is not linear. Therefore, this linear control strategy cannot fully reflect the actual convergence process. Inspired by the decreasing inertia weight factor of the PSO algorithm, this work proposes a nonlinear control parameter strategy.

$$a = a_1 - \frac{(a_1 - a_2)t^2}{T_{\max}^2}. \tag{7}$$

Compared with the original linear decline, the control parameters change nonlinearly. In the early stage, its decreasing speed becomes slower, which can increase the global search ability and avoid falling into local optimum. In the later stage, the decrement speed of this parameter is accelerated, which can speed up the algorithm optimization speed. This can effectively balance the global search and the local search.

In the design of the gray wolf algorithm, three gray wolves with the smallest fitness up to the current iteration

number are selected by the size of the fitness. They had the same amount of guidance during the location update process, but in practice, the first group was the leader of the gray wolf population, while the other two wolves were helping the first group make decisions. Therefore, updating the position by the same weight ratio cannot reflect the leadership degree among the gray wolves. In this paper, the fitness scale is calculated as a variable proportional weight of the position update equation, and a new variable proportional weight is formed by combining the proportional weight based on the step size Euclidean distance. Through this mechanism, the gray wolf in the leadership can dynamically guide the gray wolf forward, improve optimization performance, speed up the convergence speed, and prevent the algorithm from falling into local optimum.

$$
\begin{aligned}
w_{a1} &= \frac{\left[f(x_\alpha) + f\left(x_\beta\right) + f(x_\delta)\right]}{f(x_\alpha)},\\
w_{b1} &= \frac{\left[f(x_\alpha) + f\left(x_\beta\right) + f(x_\delta)\right]}{f\left(x_\beta\right)},\\
w_{c1} &= \frac{\left[f(x_\alpha) + f\left(x_\beta\right) + f(x_\delta)\right]}{f(x_\delta)},\\
w_{a2} &= \frac{|x_1|}{\left(\text{sum}\left(|x_1|, |x_2|, |x_3|\right)\right)},\\
w_{b2} &= \frac{|x_2|}{\left(\text{sum}\left(|x_1|, |x_2|, |x_3|\right)\right)},\\
w_{c2} &= \frac{|x_3|}{\left(\text{sum}\left(|x_1|, |x_2|, |x_3|\right)\right)},\\
w_1 &= \frac{w_{a1}w_{a2}}{\text{sum}\left(w_{a1}w_{a2}, w_{b1}w_{b2}, w_{c1}w_{c2}\right)},\\
w_2 &= \frac{w_{b1}w_{b2}}{\text{sum}\left(w_{a1}w_{a2}, w_{b1}w_{b2}, w_{c1}w_{c2}\right)},\\
w_3 &= \frac{w_{c1}w_{c2}}{\text{sum}\left(w_{a1}w_{a2}, w_{b1}w_{b2}, w_{c1}w_{c2}\right)},\\
x_i &= w_1x_1 + w_2x_2 + w_3x_3.
\end{aligned}
\tag{8}
$$

Finally, the improved GWO algorithm is applied to BP network optimization to construct the IGWO-BP network. Applying IGWO-BP to evaluate the quality impact of experiential education based on modern teaching concepts in university management. The process of IGWO-BP is illustrated in Figure 2.

4. Experiment

4.1. Evaluation of IGWO-BP. This work used IGWO-BP to evaluate the quality of university management after using experiential education with modern teaching concepts. First, collect the corresponding data sets. The datasets used in this work come from the databases of various universities and contain a total of 92,760 samples, of which 60,387 are training samples, and the rest are test samples. The input features of each sample are shown in Table 1, and the corresponding labels are the corresponding evaluation quality.

Firstly, the training process of IGWO-BP is analyzed. This work shows the change of training loss during the training process, as demonstrated in Figure 3.

During the first 100 iterations, the network loss drops significantly. After 100 iterations, the network loss no longer decreases significantly, at which time IGWO-BP converges.

This work compares IGWO-BO with other methods, including decision tree, SVM, and RBF. The accuracy and F1 score of the four strategies are demonstrated in Table 2.

Compared with the other three machine learning methods, IGWO-BP achieves the highest accuracy and F1 score of 94.6% and 91.3%, respectively. Compared with the RBF network, it has increased by 2.4% and 2.6%, respectively.

Compared with the traditional GWO algorithm, the proposed IGWO uses the NLCP strategy for optimization. To verify the reliability of the NLCP strategy, the accuracy and F1 score are compared without and when the strategy is used, and the results are demonstrated in Figure 4.

Compared with not using NLCP, after embedding this strategy, IGWP-BP can obtain 1.7% accuracy and 1.8% F1 score promotion. This corroborates the feasibility of using the NLCP strategy.

Compared with the traditional GWO algorithm, the proposed IGWO uses the VPW strategy for optimization. To verify the reliability of the VPW strategy, the accuracy and F1 score are compared without and when the strategy is used, and the results are demonstrated in Figure 5.

Compared with not using VPW, after embedding this strategy, IGWP-BP can obtain 2.1% accuracy and 1.9% F1 score promotion. This corroborates the feasibility of using the VPW strategy.

Finally, in order to verify the correctness of using IGWO to optimize the BP network, the performances of BP, GWO-BP and IGWO-BP are compared, respectively, and the results are demonstrated in Table 3.

The accuracy and F1 score corresponding to the BP network is the lowest. When GWO is introduced to optimize BP, the two performance indicators can be improved to a certain extent. When the GWO algorithm is further improved, the highest performance can be obtained.

4.2. Evaluation of Experiential Education. This section compares whether the quality of management education in colleges and universities has been improved after using the experiential education method based on modern teaching concepts (MCCEE). The indicators compared in this work are the eight (08) indicators mentioned in Table 1, and the detailed experimental results are demonstrated in Figure 6.

From the experimental results of Figure 6, it can be seen that after using the experiential education method based on

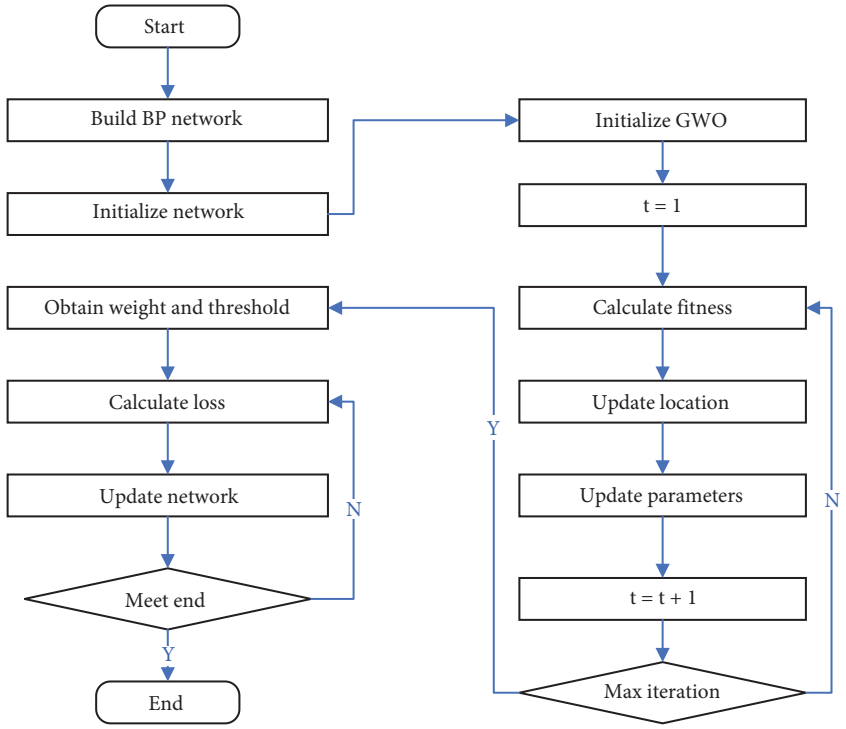

Figure 2: IGWO-BP pipeline.

Table 1: Feature information of the used data.

Index	Feature
x_1	Teaching attitude
x_2	Teaching content
x_3	Class order
x_4	Education resource
x_5	Experimental content
x_6	Homework assignment
x_7	Teacher-student interaction
x_8	Test score

Table 2: Method comparison result.

Method	Accuracy	F1 score
Decision tree	87.3	85.8
SVM	89.5	87.2
RBF	92.2	88.7
IGWO-BP	94.6	91.3

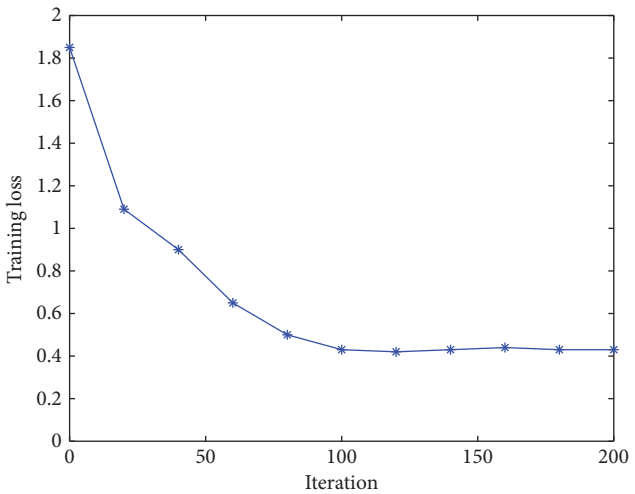

Figure 3: Training loss of IGWO-BP.

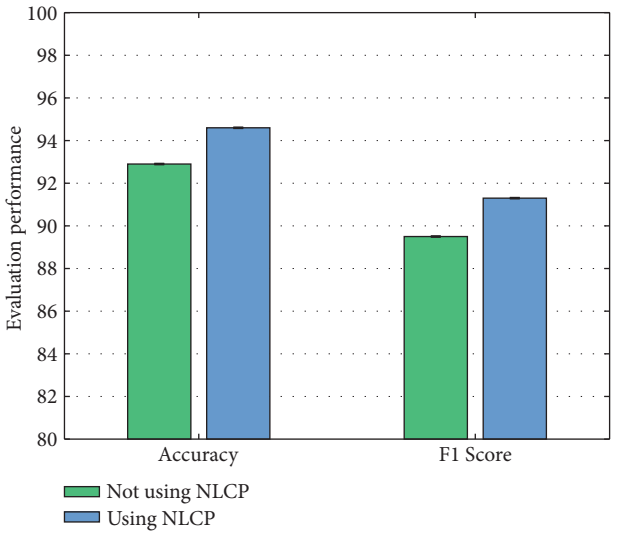

Figure 4: Comparison of using NLCP and without NLCP.

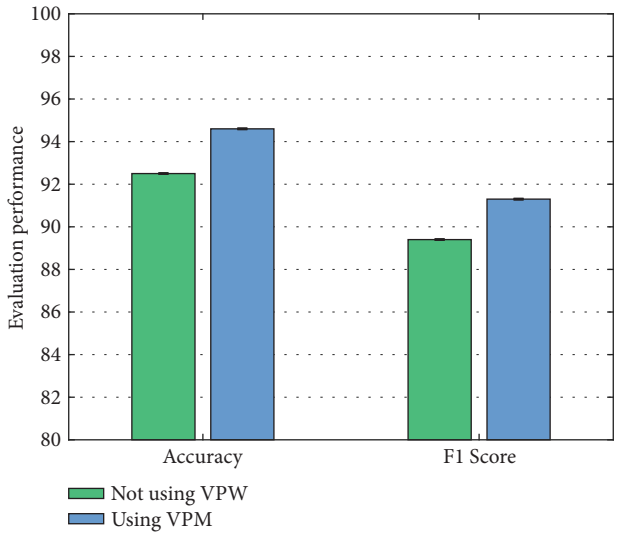

Figure 5: Comparison of using VPW and without VPW.

Table 3: Comparison of three different BP methods.

Method	Accuracy	F1 score
BP	90.2	87.8
GWO-BP	91.8	88.6
IGWO-BP	94.6	91.3

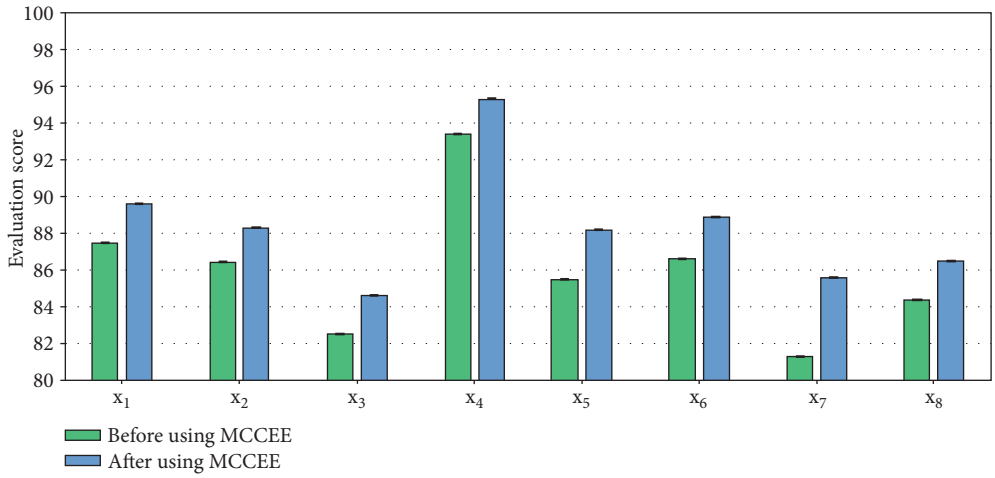

Figure 6: Evaluation of using MCCEE for the indicators.

modern teaching concepts, the quality of management education in universities has improved accordingly. This verifies the feasibility of applying experiential education based on modern teaching concepts to management education in colleges and universities proposed in this work.

5. Conclusion

Management tells students that management refers to the process of integrating the resources of the organization and achieving the established goals of the organization through the execution of functions such as planning, organization, leadership, and control under a specific environment. The experiential teaching method is a creative teaching method under modern education and teaching concept, which aims to stimulate intrinsic interest in learning through teaching experience. Today, emphasizing the cultivation of personal comprehensive ability, the experiential teaching method is gradually replacing the traditional teaching method. This allows students to realize the cultivation of the dominant

position in the classroom in the process of active learning. In fact, combining passive reception of knowledge with active perception is an important means for universities to improve the teaching effect of management. First of all, this work analyzes the meaning of experiential teaching based on modern teaching concepts and summarizes and analyzes three application methods of experiential teaching method. Secondly, this work proposes the IGWO-BP algorithm to evaluate the promotion of experiential education based on modern teaching concepts in college management. The algorithm first improves GWO to propose IGWO, which balances full search and local search through a nonlinear convergence factor and dynamically guides the population forward through a variable proportional weight. Then, IGWO is used to optimize the BP network to improve evaluation accuracy and convergence speed. Finally, this work analyzes that after the use of experiential teaching based on modern teaching concepts, the management teaching effect on students has been significantly improved.

Data Availability

The datasets used during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

Acknowledgments

This work was sponsored by the Scientific Research Foundation of SUMHS, research on the realization routine of the idea of "Great Teacher" in the teachers' moral building in Colleges and Universities (Project No. SSF-21-TSG-001).

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