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Research Article

Integrating Entrepreneurship and Innovation Education into Higher Vocational Education Teaching Methods Based on Big Data Analysis

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At present, IT plays an increasingly important role in promoting the various industries in society. Similarly, IT is inseparable from the application of IT. To this end, the article first expounds the important role that IT can play in providing a platform for IT, providing information support, and providing new opportunities in the colleges. Secondly, it points out that there are problems such as insufficient application, imperfect facilities, and one-sided application of IT in colleges. Finally, it discusses the establishment of an incentive mechanism for IT with it, the improvement of its facilities, the construction of an intelligent service system based on IT, and the construction of a virtual practice venue based on education. This paper puts forward the realization ways of IT in colleges.

1. Introduction

Every technological revolution will inevitably bring about a new round of educational revolution. At the same time, people's production, learning, management, consumption, and other ways are also constantly changing due to the influence of the times. All life have accumulated massive amounts of data, which are constantly changing people's way of life. The Internet has allowed these data to be fully opened and shared, enabling it to continuously promote economic development. Rapid development has also driven changes in the field of education [1]. Therefore, China's vocational education has entered the era of it, which has produced many development opportunities. IT has been comprehensively carried out in the management of teaching and scientific research in colleges. The informatization of vocational education should focus on the overall situation of economic and social development, actively serve the major national development strategies, increase the application of new technologies such as cloud computing, big data, Internet of Things, virtual reality, augmented reality, and artificial intelligence, and reflect the characteristics of vocational education, such as the integration of industry and education, school enterprise cooperation, the integration of work and learning, and the integration of knowledge and practice.

In recent years, with the proposal of "mass it," education has flourished under the support of the state and society [2]. As the main base of education, higher vocational colleges undertake the important task of cultivating talents for national innovation and development [3]. Therefore, higher vocational colleges must transform traditional education methods, follow times and social needs, and strengthen the application of it in education. First is the in-depth utilization of educational IT resources. For the informatization in the past 30 years, all colleges have accumulated massive data, including data on enrollment and employment, teaching process, teaching management, and professional construction [4]. These numbers contain valuable value. As long as a suitable method is found, the potential value will be analyzed to teaching managers. Secondly, the mining of the process data of student activities, including student consumption, book borrowing records, course selection, and teaching achievements, will promote more accurate teaching evaluation and more personalized teaching. In addition, through IT technology, we can better tap the needs of society for modern education, formulate more in line with national and local education development plans, and choose an accurate school-running model, which has development strategies [5].

People's ability to innovate and entrepreneurship continues to improve. Colleges are closely following the pace of education, promoting the implementation of IT strategies and establishing them in the field of education, and at the same time deepening the process of education. College students should be sound in it. Self-improve comprehensive literacy and quality, so as to better integrate with the times [6]. All colleges should improve the characteristics of education and propose a new way of entrepreneurship education combined with the new data education model. Figure 1 shows an architecture design scheme of an IT platform for IT precision teaching in colleges. The program uses mainstream IT technologies and tools, covering data extraction, storage, analysis, and other processes, and provides solutions for IT educators to use IT to achieve precise teaching.

2. State of the Art

The era of IT provides students with entrepreneurial opportunities. Internet IT has changed the direction of industries in various fields and brought entrepreneurial opportunities for college students. Colleges across the country are actively responding to the slogan of education. The application of IT will provide students with more opportunities to start a business. Entrepreneurship education in China is not only to let students learn entrepreneurship theory from the classroom but also should actively use WeChat public platform, Weibo public platform, Zhihu official account, and other channels to let students better understand the entrepreneurial support and support activities of the state and schools. In addition, a variety of entrepreneurship education courses are opened on the campus website, such as Mu class, microclass, and smart class, so that students can use modern information technology to better study entrepreneurship theory. In tourism, catering, and training industries, IT has been widely used. The development of the Internet has led to entrepreneurship and innovation, provided education data, and helped college students reduce risks and improve success rates of college student's entrepreneurship through entrepreneurial thinking and entrepreneurial ideas [7]. In the environment of IT, the survival of the fittest in business will continue to accelerate. It is valued by industries in various fields. At the same time, IT has also changed the business form and industrial chain structure to follow the pace of the times and open up new fields of entrepreneurship.

2.1. The Important Role of IT in Education in Colleges. In the colleges, the effective application of IT provides a platform, useful information, and new development opportunities for students to a business. In the context of the development of information technology, in order to cultivate the innovation and entrepreneurship ability of college students, the development of their ability is difficult to be separated from science and technology. The convenience provided by information technology enables them to follow the development and progress of the times and constantly give play to their inherent potential in the process of cultivating their ability. In the process of entrepreneurship education for college students, governments, enterprises, and colleges and universities should make full use of information technology, vigorously develop entrepreneurship simulation platforms, and carry out new types of online entrepreneurship, so that Internet courses run through the whole process of entrepreneurship, so that students can fully experience the reality of entrepreneurship. Therefore, the introduction of IT in education in colleges can improve the quality of students' IT, enhance their innovation ability and entrepreneurial success rate. IT has three roles in education in colleges as shown in Figure 2 [8].

One is to provide a platform for students to businesses. In the era of IT, higher vocational colleges carry out education and can directly rely on the Internet to build an education platform with the support of IT. The education platform can be composed of two systems: support and application. Among them, the support system mainly includes multiple subsystems such as IT collection, integration of various resources, review of IT data and information, simulation training, and entrepreneurship services. Through coordinated development, the effective integration of educational process and information data can be achieved [9].

The second is to provide information support for students' IT. In the practice of education based on IT, higher vocational colleges can provide good information support for students' IT. First of all, with the support of IT, students can directly collect large-scale and comprehensive education data through the Internet, so as to accurately predict innovation trends and entrepreneurial prospects, grasp social needs, identify more suitable entrepreneurial directions in the new era, enhance the success rate of IT, and at the same time provide employment for more difficulties of college students [10]. Secondly, students can use IT mining technology to mine useful information, and through analysis and prediction and IT simulation, they can timely discover problems in IT and avoid them in advance, so as to provide decision support for their success in IT.

The third is to provide students with new opportunities for IT. In the era of IT, the development direction of various industries in society has changed, or from offline physical storefronts to online virtual companies, or the simultaneous development of physical and virtual. At the same time, new industries and new formats based on IT continue to emerge, such as online education and training, live broadcast sales, online office, and catering takeaway [11]. All these provide new opportunities for students to innovate and start businesses. In the era of IT, it also provides more development directions for the Chinese market. Contemporary college students can directly rely on the network platform to create a company, which has the advantages of wide spread coverage, faster speed, no regional restrictions, and no time constraints, reducing the cost. Cost shortens the distance between users and companies and lays the foundation for the success of entrepreneurship. Under the new situation, in order to solve the problem of college students'

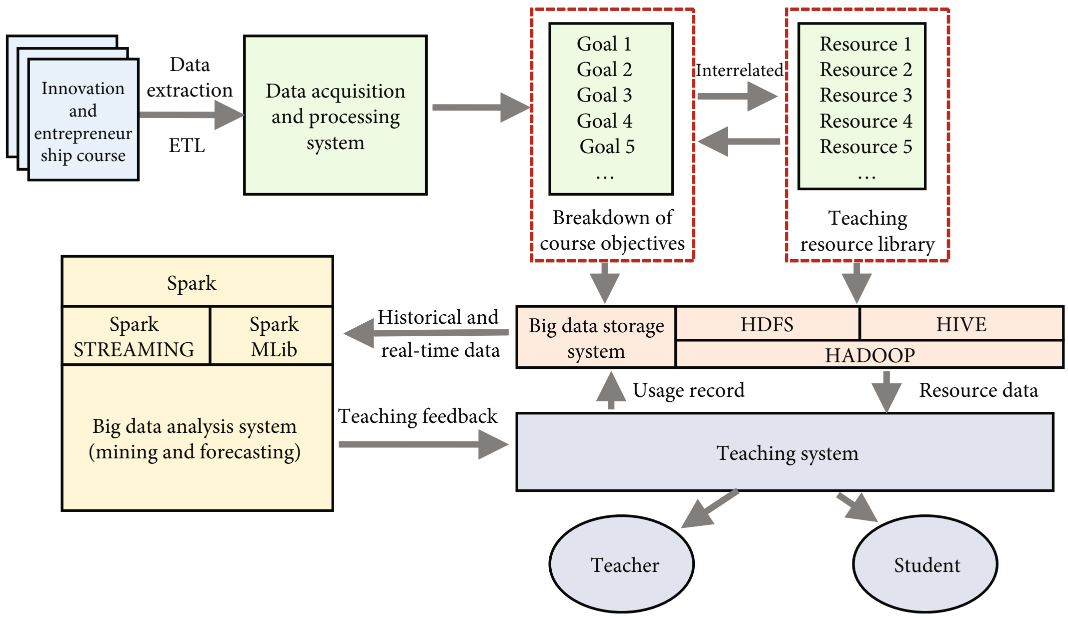

Figure 1: Architecture of the IT platform for IT precision teaching in colleges.

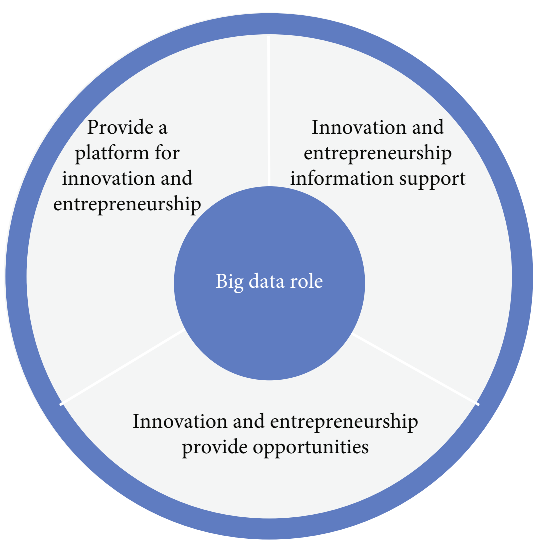

Figure 2: The role of IT in colleges.

employment difficulties, a number of IT support policies of education proposed by the state have been launched in various colleges, and with the arrival of the era of IT, many new opportunities have been brought to college students.

2.2. Problems Existing in IT in Education in Colleges. At present, there are still some problems in education in colleges in the era of IT. First, some teachers in colleges are influenced by traditional educational ideas, which hinder the application of IT in education [12]. For example, some teachers believe that the role of IT in education is not too great. Secondly, many colleges have low investment in the construction of IT facilities, which affect the role of IT in education. Finally, the application of IT is one-sided, and the education method of IT is single. Some teachers lack the experience of using IT in IT teaching, which leads to one-sided application of IT and a single way of education. These problems in the application of IT make it difficult to guarantee the quality of education.

First, the application of IT in education is insufficient. Although the era of IT has provided many advantages for education in colleges, in the actual development of education, teachers still need practical application. Due to the influence of traditional educational ideas, many teachers believe that the role of IT in education is not too great, so the enthusiasm for application in teaching is not high, and it is used less [13]. Strengthen the common sense of multimedia use of teachers in this discipline, strengthen mutual communication with computer teachers, and focus on training teachers in multimedia production courses. The two complement each other and produce more excellent Chinese teaching courseware and courseware that have an effect on the environment of this discipline. Break the zero situation and constantly explore the application of multimedia courseware in classroom teaching. In addition, although under the school-enterprise cooperation model, many teachers have been able to learn from enterprises and master some more practical educational methods, and some teachers are still influenced by traditional ideas in their teaching methods. At the theoretical level, the teaching is also based on the old methods. There are problems of insufficient implementation and insufficient application of IT in education.

Second, the investment in the construction of IT applications is low and the facilities are not perfect. At present, due to the low investment of some higher vocational colleges in the construction of IT application facilities, the application of IT in education is affected. To rely on the Internet to build an IT platform, with the support of IT, to cultivate students' IT ability, is inseparable from the support of a large amount of funds. Whether it is the construction of advanced experimental equipment, the construction of training venues, the supporting software for IT, or the large amount of materials consumed by the experiment, financial support is required. However, most higher vocational colleges have limited school-running funds, and the construction of IT supporting facilities is a process that requires long-term investment [14], and many schools are not very motivated. In this way, it is difficult for IT facilities to IT technology applications.

Third, the application of IT is one-sided, and the education method of IT is single. In the education in colleges, even if IT application scenarios are constructed, there are usual application and lack of experience, the implementation of IT technology is not in place, and it is difficult for most teachers to obtain massive resources for educational support. Education can only carry out regular classroom education [15]. The application of IT is often superficial. For example, when mining user consumption habit information, only simple data clustering analysis can be performed, and a consumption habit prediction model cannot be established. It is impossible to conduct in-depth analysis of user habits, it is difficult to demonstrate the effect of the application of it technology, and it is difficult to guarantee the quality of education. In the era of IT, some colleges gradually apply IT to education. However, the lack of various equipment, talents, and simulation practice venues in colleges makes the application of IT limited to the search of education resources, and it is difficult to realize the in-depth application of IT technology [16]. Not only that, the above-mentioned application of IT technology often stays at the theoretical level, and it is difficult for students to participate in it. The lack of specific practical projects makes practical education still unable to match the theoretical courses, which affects students' interest in participating, and it is difficult for students to participate and gain from it. It should be noted that education contains a lot of content. However, in the application of IT, it is mainly used for successful cases and education material search. These situations have led to the phenomenon of one-sided application of IT in some higher vocational colleges and the emergence of a single way of education.

3. Methodology

The continuous promotion of education informatization and the vigorous development of online education have produced a large amount of education data. How to mine and analyze education big data has become an urgent problem in the field of education, and big data knowledge engineering the cognitive tracking model tracks the cognitive state of students over time by obtaining the score performance of students' answer exercises, so as to predict students' answer performance in the future. As shown in Figure 3, the cognitive tracking model belongs to the dynamic data-oriented student model. In the cognitive tracking model, students' answers to exercises are represented as observable variables, and students' cognitive status is an unobservable hidden variable [17]. Corbett et al. constructed a Bayesian cognitive tracking (BKT) model based on a hidden Markov model (HMM) including observed variables and latent variables. Subsequently, scholars have carried out research on cognitive tracking models from the aspects of variable representation, data feature information, and modeling methods.

3.1. Educational Data Mining. Figure 4 is a schematic diagram of an education system. There are three roles in model [18]. The knowledge base is the system; they interact through assessment systems or exercises.

According to different research objects, related research on educational data mining includes related models and methods for students, teachers, and knowledge bases [19]:

(1) Student-oriented models and methods: including models for assessing or tracking students' cognitive status (such as cognitive diagnostic models, cognitive tracking models, personalized recommendation of learning resources, and collaborative learning recommendation algorithms)

(2) Teacher-oriented models and methods: including automatic evaluation and scoring of test papers, such as computer adaptive testing (CAT), which can accurately locate test content and evaluate the rationality of test papers according to students' test conditions

(3) Knowledge base-oriented models and methods

Model is a learning data modeling, based on the data of students' answering performance to exercises during the learning process, to track students' mastery of knowledge points over time.

3.2. Overview of Cognitive Tracking Model

3.2.1. Basic Introduction to the Model. Cognitive tracking is aimed at analyzing the changes of students' cognitive state and predict their answering performance in the future according to the data of students' answering exercises at different times. Given a set of I students $\{Si\}, i \in \{1, 2, \cdots, I\}$ and Q knowledge points set $\{KCq\}, q \in \{1, 2, \cdots, Q\}$, the scores of I students answering exercise E at time step t are set $\{yi\}, i \in \{1, 2, \cdots, I\}, t \in \{1, 2, \cdots, T\}$. The exercise Eti that student Si answers at time step t involves the knowledge point set $Ki \subseteq \{KCq\}, q \in \{1, 2, \cdots, Q\}$, where Ki may be unknown. Two common solution goals in cognitive tracking problems are as follows:

(1) To solve the cognitive state of students at different times, the objective function is

$$\arg\min \left(\sum_{i=1}^{l} g\left(\widetilde{y_i^{T+1}}, y_i^{T+1} \right) \right) \quad (1)$$

(2) To predict the students' answering performance at time $(T + 1)$, the objective function is

$$\arg\max \left(\sum_{i=1}^{l} \sum_{q=1}^{Q} f\left(k_{q,i}^{t} ; y_i^{t} ; K_i^{t} \right) \right) \quad (2)$$

In the cognitive tracking model, the data of students'

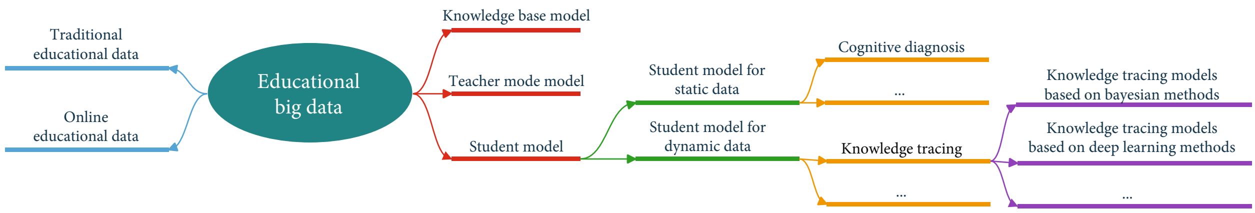

FIGURE 3: Cognitive tracking model in education.

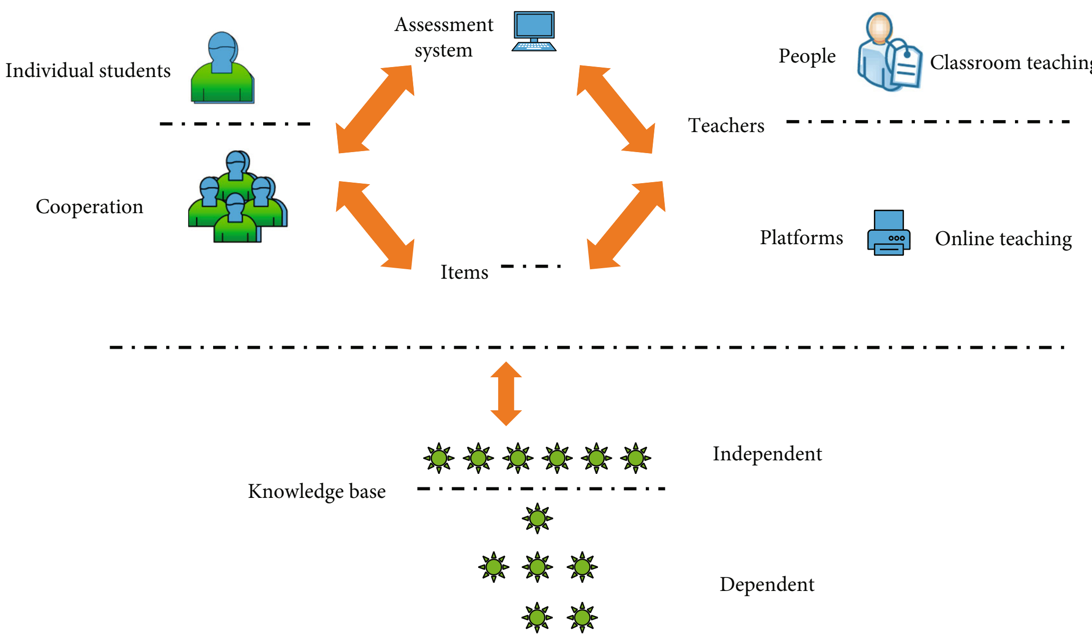

FIGURE 4: Schematic diagram of the education system.

answering questions are in time order. Therefore, the order in which students answer the exercises may affect the students' learning efficiency and thus their answering performance. The cognitive tracking model can find the prerequisite relationship between the exercises through Equation (3). Among them, $y(j|i)$ represents the probability that the student correctly answers exercise j at this time step when it is known that the student has correctly answered exercise i in the previous time step, and K represents the number of exercises the student answered:

$$J_{i,j} = \frac{y(y|i)}{\sum_{k=1}^{K} y(y|k)}. \quad (3)$$

3.2.2. Evaluation Indicators of the Model. Common evaluation indicators in cognitive tracking models are log-likelihood (LL), RMSE, MAE, and the area under the ROC curve. Different evaluation indicators can be selected in different application scenarios [20]. For example, the classical parameter estimation method EM algorithm usually uses LL fitting parameters. LL, RMSE, and MAE are calculated as

$$\text{metrics}_{\text{LL}} = \sum_{i=1}^{n} [c_i \lg (p_i) + (1 - c_i) \lg (1 - p_i)], \quad (4)$$

$$\text{metrics}_{\text{RMSE}} = \sqrt{\frac{1}{n}\sum_{i=1}^{n} (c_i - p_i)^2}, \quad (5)$$

$$\text{metrics}_{\text{MAE}} = \frac{1}{n}\sum_{i=1}^{n} |c_i - p_i|. \quad (6)$$

Among them, n represents the number of predicted data, c_i represents the i-th predicted data, and p_i represents the i -th real data. Corresponding to the cognitive tracking model, n represents the number of exercises that students answer, and c_i and p_i represent the predicted and actual scores of students answering the i-th exercise, respectively.

3.3. Cognitive Tracking Model Based on Bayesian Method. The Bayesian probability-based cognitive tracking model (BKT model) builds a model system and monitors and estimates the points.

HMM describes the probability distribution $Y = (y1, y2, \cdots, yt, \cdots, yT)$ on discrete time series in the sequence $X = (x1, x2, \cdots, xt, \cdots, xT)$. Among them, Y is called the observation sequence, X is called the hidden state, and both Y and X are discrete sequences. t represents the time step, that is, the observed variable yt at time step t is only related to xt, and the probability of xt to yt is called the emission probability, denoted as $P(yt \mid xt)$. The sequence gradually transitions from $x1$ to xT. The hidden state xt of any time step to the hidden state $xt+1$ of the next time step is called the transition probability, denoted as $P(xt+1 \mid xt)$.

The cognitive tracking model based on the Bayesian method is modeled based on three assumptions:

(1) Each exercise is only related to one knowledge

(2) Ignore students' cognitive forgetting factor, that is, students' cognitive state of knowledge can be transferred from "unmastered state" to "mastered state," but the probability of vice versa is 0

(3) The transition probability $P(T)$ of the students remains unchanged and has nothing to do with the students' answering performance and the number of correct answers

The specific steps of BKT are as follows:

Step 1. A student's answer data for one knowledge point is modeled as the BKT model shown in Figure 5.

Step 2. Initialize the values of the four parameters $P(L0)$, $P(T)$, $P(G)$, $P(S)$, and time step $t=1$.

Step 3. According to the observation values $y_{q,t}$ of time step t, calculate the knowledge point mastery conditional probability $P(L_{t-1}|y_{q,t})$ of time step $t-1$; if $y_{q,t}=$ Correct, then

$$P\left(L_{t-1}\middle|y_{q,t}=\text{Correct}\right)=\frac{P(L_{t-1})(1-P(S))}{P(L_{t-1})(1-P(S))+(1-P(L_{t-1}))P(G)}. \tag{7}$$

If $y_{q,t}=$ Incorrect, then

$$P\left(L_{t-1}\middle|y_{q,t}=\text{Incorrect}\right)=\frac{P(L_{t-1})P(S)}{P(L_{t-1})P(S)+(1-P(L_{t-1}))(1-P(G))}. \tag{8}$$

Step 4. Use the conditional probability $P(L_{t-1} \mid y_{q,t})$ at time step $t-1$ to update the probability $P(L_t)$ that students master the knowledge point at time step t.

$$P(L_t)=P\left(L_{t-1}\middle|y_{q,t}\right)+\left(1-P\left(L_{t-1}\middle|y_{q,t}\right)\right)P(T). \tag{9}$$

Step 5. Update the values of 4 parameters, $t=t+1$.

Step 6. Return to Step 3 until time step $t=T$, and get the solution of 4 parameters.

Step 7. Return to Step 2 until the algorithm terminates, and the BKT model is obtained.

After obtaining the optimal solution of the four parameters, the cognitive state of the students can be evaluated. When the student answers correctly, the cognitive state of the student is

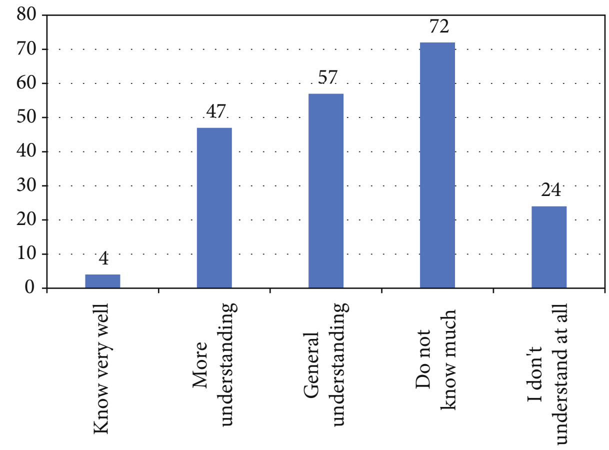

FIGURE 5: Students' awareness of higher vocational education.

$$P\left(L_{t-1}\middle|y_{q,t}=\text{Correct}\right)=P(L_t)(1-P(S))+(1-P(L_t))P(G). \tag{10}$$

When the student answers incorrectly, the cognitive state of the student is

$$P\left(L_{t-1}\middle|y_{q,t}=\text{Incorrect}\right)=P(L_t)P(S)+(1-P(L_t))(1-P(G)). \tag{11}$$

In addition to assessing the cognitive state of students, it is also possible to predict the student's answering performance at the next time step, that is, to calculate the probability that the student will answer the exercises correctly at the next time step:

$$P\left(y_{q,t+1}=\text{Correct}\right)=P\left(L_{q,t+1}\right)(1-P(S))+\left(1-P\left(L_{q,t+1}\right)\right)P(G). \tag{12}$$

3.4. Cognitive Tracking Model Based on Deep Learning. Deep learning has been used in various researches because of its powerful representation ability, and the cognitive tracking model based on deep learning method improves the accuracy of the traditional cognitive tracking model.

The cognitive tracking model predicts the student's answering performance $yt+1$ in the future time step according to the student's answering performance sequence $(y0, y1, \cdots, yt)$ at each time step $(0, 1, .., t)$, which is essentially a time sequence problem.

The DKT model is optimized by using the minibatch stochastic gradient descent method. For a student, calculate the sum of the cross-entropy information of the student from time step 0 to time step t, and the optimization objective is

$$\min L=\sum_t l(o\cdot\delta(q_{t+1}), a_{t+1}), \tag{13}$$

where $l(.)$ represents the cross-entropy loss function. The

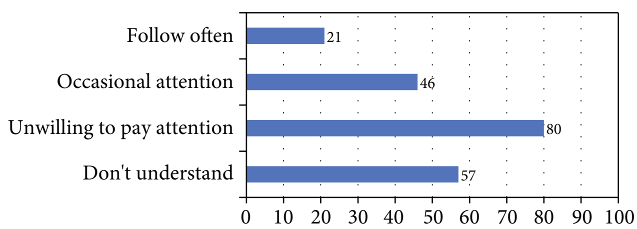

Figure 6: Students' attention to education policies in the province.

activation functions used are mainly Sigmoid functions, which are unipolar Sigmoid functions and bipolar Sigmoid functions, respectively. The expressions are as follows:

$$f(x) = \frac{1}{1 + e^{-x}}, \quad (14)$$

$$f(x) = \frac{1 - e^{-x}}{1 + e^{-x}}. \quad (15)$$

4. Result Analysis and Discussion

This section mainly takes an example to carry out empirical analysis. First, understand the implementation of education in the colleges; then use questionnaires to understand students' learning of IT-related knowledge, and use the cognitive tracking model designed in Section 3 to examine students and teachers' perceptions of education implementation. Finally, the main problems and reasons in the implementation of education in vocational and technical colleges are analyzed and targeted and feasible improvement.

4.1. Sample Data. The survey was conducted using anonymous questionnaires. After the questionnaire validity analysis, there were 204 valid questionnaires, and the effective rate was 96.23%. The 2021, 2020, and 2019 levels of the student questionnaire survey were conducted by stratified sampling. Among them, 50 people were selected for the 2021 level, 70 people were selected for the 2020 level, and 100 people were selected for the 2019 level. 45 teacher questionnaires were distributed and 44 were recovered, with a recovery rate of 97.78%. After the questionnaire validity analysis, there are 43 valid questionnaires, and the effective rate is 97.73%. The teacher questionnaire was conducted by random sampling with teachers in vocational and technical colleges as the unit. The questionnaires of students and teachers in this survey mainly focus on the cognition, emphasis, construction of supporting facilities, and curriculum construction of education.

4.2. Result Comparison and Analysis. According to the cognitive tracking model designed in Section 3, through the analysis of the 204 teachers and students surveyed, it is concluded that the teachers and students of the higher vocational college have mastered the knowledge related to IT, as shown in Figure 5. According to Figure 5, only 2% of the students have a "very understanding" of education in colleges, and 23% of the students have a "comparative understanding" of it. Among them, 35% of the students said that they "do not know very much," and 28% of the students

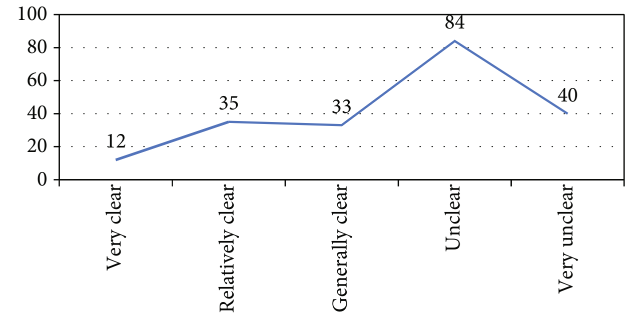

Figure 7: The goal of students' IT activities after graduation.

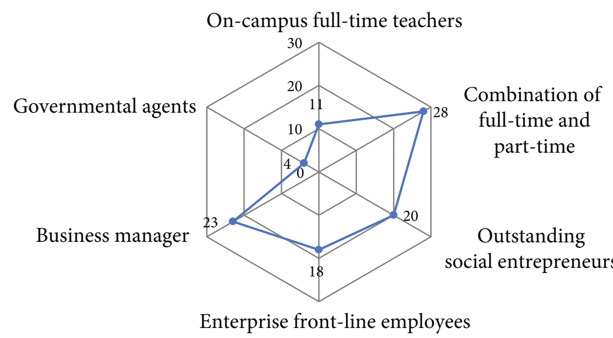

Figure 8: Sources of the composition of IT teacher teams in colleges.

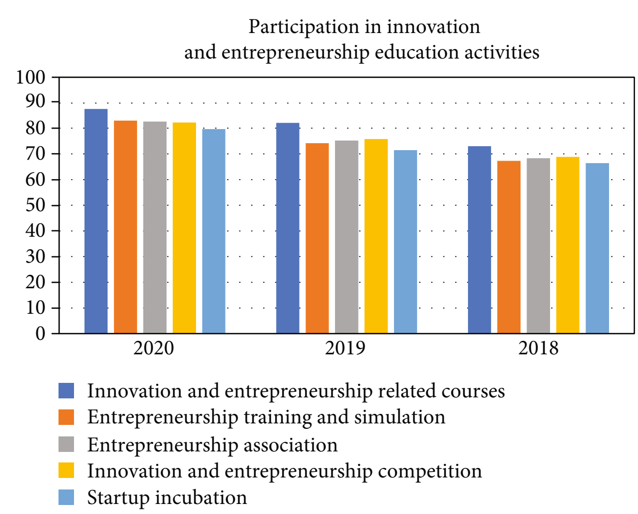

Figure 9: Participation in IT activities of vocational students of different grades.

said that they "generally understand" the basic content. And, 12% of the students still said they "do not understand at all." From this, it can be seen that the students in the school have not formed a correct and clear cognition of the current education in colleges.

The main reasons for this phenomenon may include the following points: first, the degree of publicity of IT in colleges is not high, which has not attracted the attention of

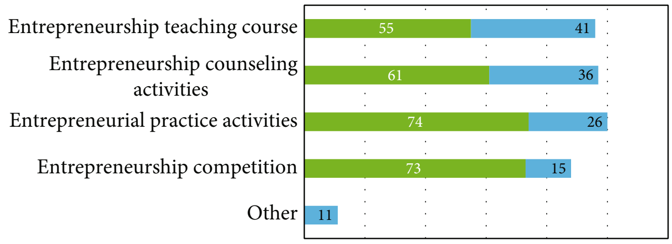

Figure 10: Number of participants and satisfaction ratio of different entrepreneurial activities.

students; entrepreneurship education also failed to receive cutting-edge information on IT in a timely manner.

In terms of the rules and regulations of education in the school, according to Figure 6, only 13.73% of the students expressed "regular attention." 18.14% of the students expressed "occasionally concerned," 41.67% of the students expressed "not willing to take the initiative to understand, just know a little," and 26.47% of the students expressed "do not understand." From this, we can see that only a small number of students attach great importance to education in colleges, and most students still do not pay the necessary attention to IT policies in colleges.

According to Figure 7, students' goals for future IT activities can be seen. Among the students surveyed, only 5.88% of the students said that they have "very clear" goals, and 17.16% of the students said that the goals are in a "relatively clear" state. Among the remaining students, 16.18% said they were "generally clear," 41.18% said "unclear," and 19.61% said they were "very unclear" about whether to carry out entrepreneurial activities in the future. It can be seen from this that the current higher vocational students are not very sure about the goals of independent IT activities in the future and have not formed a clear goal orientation.

In terms of the source of IT teachers, the source of teachers should be diversified. As can be seen from Figure 8, in terms of the composition of IT teachers, it is more inclined to "combination of full-time and part-time jobs" and the introduction of "outstanding social entrepreneurs," "enterprise frontline employees," and "enterprise managers" to gradually realize the IT teacher team.

According to Figure 9, in terms of participation in education activities, students of different grades have different degrees of participation in education activities. IT activities mainly cover related course teaching, entrepreneurship training and simulation, entrepreneurship association activities, IT competitions, and entrepreneurship incubation. The importance and urgency of students of different grades to entrepreneurial activities are reflected in the degree of participation in the activities. Figure 10 shows the percentage of people who participated in different entrepreneurial activities and those who found the activities helpful. As can be seen from the figure, among the current entrepreneurial activities, entrepreneurial practice activities are the most helpful.

4.3. Ways to Realize IT in Education in Colleges. Higher vocational colleges should establish an incentive mechanism for education with IT to encourage teachers to use IT in teaching. First, establish a material incentive mechanism. Those who use IT for teaching in the classroom of education have achieved good teaching results and can be given certain rewards every semester or every academic year. Second, establish a spiritual incentive mechanism. Honor and reward those who actively use IT to carry out teaching work and achieve obvious results. IT has the characteristics of richness and timeliness, which helps teachers and students to understand various IT information at the first time, grasp the hot spots of IT, trace the dissemination of key information of IT, judge the future trend of IT, and provide education. Effective information support improves classroom richness and enhances the level of education. Therefore, the establishment of an incentive mechanism for education with IT in vocational colleges promotes teachers' use of IT in teaching.

The first is to establish an incentive mechanism for education with IT. Higher vocational colleges should establish an incentive mechanism for education with IT to encourage teachers to use IT in teaching. IT has the characteristics of richness and timeliness, which helps teachers and students to understand various kinds of IT information at the first time, grasp the hot spots of IT, trace the dissemination of key information of IT, judge the future trend of IT, and provide education. Effective information support improves classroom richness and enhances the level of education. Therefore, the establishment of an incentive mechanism for education with IT in vocational colleges promotes teachers' use of IT in teaching.

The second is to increase funding and improve teaching facilities for IT education. The IT teaching facilities used in the construction of IT mainly include the following aspects: first, equipment for analyzing and experimenting massive IT; second, online virtual training places based on IT; third, online training based on IT; and fourth is the software that supports the operation and analysis of IT.

The third is to build an intelligent IT teaching service system based on IT. Use IT technology to analyze the school's past education information, grasp the deficiencies of school education, mine the data of the Internet Shanghai, analyze the existing policy resources and industrial reform, and propose countermeasures. Real-time recording and comprehensive analysis of the learning and training process of college students can improve students' learning efficiency. Supported by the cloud computing platform, the education data of IT is classified and managed, such as education, policy resources, and enterprise practice according to the content. Different users can quickly query information according to their own needs. When new support policies for IT and new hotspots appear, the file system automatically identifies and generates a catalogue, which is shared with platform owners to provide support for education.

5. Conclusion

Internet technology has gradually emerged, playing an important role in cultivating talents, and promoting the quality of education with the help of data. IT is developing rapidly in my country at present, and all sectors of society strongly support entrepreneurship. Therefore, colleges need to combine IT to develop new teaching models in education courses. However, at present, there are few educational concepts, available data, and operational solutions in colleges, which limit the development of education. In order to effectively solve this situation, colleges need to integrate entrepreneurship and innovation education into their daily teaching work based on IT analysis methods.

Data Availability

The figures used to support the findings of this study are included in the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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