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E-Commerce Personnel Training of "Government-Industry-Enterprises-University" Based on Computer Cloud Computing

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Abstract: The rapid development of the Internet has enabled various cloud computing-based applications to gradually penetrate into the fields of E-Commerce (EC), education, and medical care. With the reform of education, EC personnel training is innovating in the direction of "Government-Industry-Enterprises-University" (GIEU), that is, building a teacher training construction that links the government, schools, enterprises and industries, and further realizes the innovation of EC personnel training model and guarantees the personnel training model Have a lasting effect. In view of this, this article aims to study the EC personnel training of "GIEU based on Computer Cloud Computing (CCC). This article takes H university as an example, uses the questionnaire survey method to conduct experimental investigations, analyzes the current situation of modern university electronic biology "GIEU" personnel training mode, finds out its existing problems and analyzes the specific causes of the problems. This article puts forward several countermeasures to improve the EC "GIEU" personnel training model based on the reasons for the existing problems. The survey data shows that among the 965 valid questionnaires, 46.01% think that the integration of industry and education and school-enterprise cooperation are the most suitable, and 21.97% think that the modern apprenticeship is more suitable. This shows that the integration of production and education, and the school-enterprise cooperation personnel training model are the most effective ways to train EC professionals.

1. Introduction

Cloud computing has gradually moved towards application [1]. The combination of cloud computing and EC makes the flow and acquisition of information more convenient, which in turn promotes the rapid rise of the Internet of Things, mobile Internet, and mobile EC [2-3]. Under the

new situation, EC personnel training has entered a new stage of system construction, which requires us to continuously deepen the reform of the personnel training model [4-5]. In order to cater to this personnel training requirement, my country's institutions of higher learning need to develop a personnel training model based on "GIEU" collaborative innovation. This method mobilizes the government, schools, enterprises, and industry associations, so that all parties can make full use of Promote the all-round development of EC personnel training with its own advantages [6-7].

Many scholars have conducted multi-angle discussions on the research on "GIEU" and EC personnel training. For example, TYang M has conducted in-depth research on the issue of school-enterprise collaboration in higher vocational education, and put forward a series of implementation measures and suggestions to promote collaborative innovation between government, school, industry and enterprise [8]; Tong L believes that many higher vocational colleges are currently, but here are still some problems in social practice[9]; Chen B pointed out that it is necessary to optimize the motivation mechanism and guarantee mechanism of "GIEU" practice education, so as to establish a rich and colorful curriculum content and a long-term mechanism for cultivating high-level technical personnels [10].

This article aims to study the EC personnel training of "GIEU" based on CCC. This article takes H colleges as an example, uses the questionnaire survey method to conduct experimental investigations, analyzes the status quo of the modern college EC "GIEU school" personnel training model, finds out its existing problems and analyzes the specific causes of the problems [11-12]. This article puts forward several countermeasures to improve the EC "GIEU" personnel training model based on the reasons for the existing problems.

2. EC Personnel Training for "GIEU" Based on CCC

2.1. Problems and Causes of EC Personnel Training

(1) Lack of Effective Integration of EC Resources

In fact, the current EC development model in many places is relatively backward. The state has given colleges and universities a variety of special policies for the development of EC in the construction of bonded port areas, equipment use, etc., all of which have low resource utilization and lack of effective integration of resources, which affects colleges and universities to a certain extent Training of EC personnels. How to effectively integrate these technical and policy resources to provide better conditions and platforms for EC personnel training and professionalization requires the government to innovate mechanisms and systems to ensure the flexible conversion and use of policy resources and effective integration at the institutional level.

(2) The Target Level of EC Personnel Training Fails to Meet the High-Quality Development Needs of the Enterprise

One is the unclear positioning of EC professionals. It is learned from the official websites of various universities that some universities have not accurately positioned the EC major, the target level is chaotic, the training model lacks systematic and completeness, the curriculum setting is relatively random, and the vast majority of universities have not positioned according to the needs of the market. Teaching does not fit well with market demand.

The second is that the curriculum is too single. Because most of the EC industry uses online channels, some schools one-sidedly believe that EC majors can follow the path of online sales as long as they learn computer knowledge. The main courses offered are computer knowledge, and economic management courses only Network economics and management courses are only project management, lack of teaching relevance, completeness and practical courses, and no courses

specifically for compound talents.

(3) Enterprises and Society Participate in EC Personnel Training Low

At present, the EC industry is still at an early stage of development, EC training resources are relatively scattered, and the training capabilities and training levels of social institutions are uneven. The traditional personnel training model can no longer meet the needs of the industry, and enterprises and society participate in the training of EC talents. The enthusiasm is not high.

2.2. Strategies for Training EC Talents in "GIEU"

(1) Give Full Play to the Main Role of Colleges and Universities

1) Clarify the orientation of EC personnel training in universities. The orientation of EC personnel training in colleges and universities should be based on extensive and in-depth investigation and research, and a comprehensive understanding of the actual needs of EC enterprises, and scientifically determine the goal and main direction of personnel training.

2) Strengthen the construction of teaching staff and improve the quality of personnel training.

One is to increase the introduction of outstanding talents. Colleges and universities should establish a "flexible introduction of talents" mechanism, aim at market demand and their own discipline development positioning, increase the introduction of EC talents, and promote the construction of EC professional leaders and talent echelons. By recruiting professionals with EC operation experience from the society to teach in the school, the structure of the teaching staff is optimized and the teaching staff is enriched.

The second is to strengthen the construction of the teacher training mechanism in universities. Colleges and universities should adapt to the development of the times, actively explore the adoption of flexible and diverse teacher training mechanisms in line with their own reality and characteristics, implement diversified training, and create favorable conditions and build a broad platform for the improvement of teachers' professional competence. Different training plans should be developed according to the actual and requirements of the teachers' development at various stages, and the training should be tailored to each individual. Make full use of modern advanced methods such as multimedia, modern networks, and distance education platforms to help teachers obtain the latest knowledge and information in a timely manner, grasp the latest trends in the development of EC, and improve the teachers' ability to learn and innovate themselves.

(2) Establish a Government-Led Policy Guarantee Mechanism for "Gieu"

1) Legislation and system guarantee

The main task at this stage is to have a special legislative body to revise the Vocational Education Law in accordance with the new situation, and at the same time to speed up the revision of other laws and regulations. And in order to strengthen the institutionalization of school-enterprise cooperation, local governments and education departments at all levels should establish a corresponding government coordination system within the city. At the same time, the relevant curriculum construction system, student management system, faculty capacity building system, and personnel reform system must also be adjusted to adapt to the coordinated and innovative development of "GIEU".

2) Fund guarantee

In the collaborative innovation and development of "government, school, enterprise", the fund guarantee system must be established and perfected. For irregular government funding, donations from social forces, corporate contributions, or investments in the name of individuals, a special capital investment system should be formed, and social forces should be encouraged to contribute

more. In addition to financial support from government departments, enterprises should bear part of the cost of personnel training, which is the basic obligation that should be undertaken as beneficiaries.

3) Supervision and guarantee

Regularly inspect and evaluate the coordinated development of "GIEU" in higher vocational colleges, and to include it in the evaluation of corporate social responsibility. Every year, each province and city has human resources and social security departments in-depth companies to inspect the company's internship environment, whether to strictly perform school-enterprise cooperation responsibilities to allocate corporate teachers, whether to establish a practice base in the company, recruit internship and employment plans, etc., and conduct internship education supervision and evaluation on the company and accountability.

(3) Give Full Play to Corporate Synergy

1) Enterprises should increase investment in EC personnel training

Enterprises should change their concepts, realize the relationship between EC personnel training and enterprise production efficiency and long-term development of enterprises, regard personnel training as an important measure for enterprises to seek long-term development, and increase investment in vocational training. At the same time, actively play the role of enterprises in school-enterprise collaborative education, create internship opportunities for students, solve the problem of insufficient talent reserves of enterprises, and achieve a win-win effect.

2) Improve the incentive mechanism for EC talents to prevent the loss of talents

To attract and retain talents, EC companies should start from the internal system and establish a relatively complete talent incentive mechanism. In addition, companies should also establish a sound salary and reward system. At the same time, they should pay attention to spiritual incentives. EC companies should provide employees with appropriate incentives or rewards in terms of technical projects, vocational training, job promotion, and career planning based on their actual work performance, so as to further stimulate the enthusiasm and enthusiasm of EC talents and strengthen the company.

(4) Give Full Play to the Promoting Role of Society

Integrate all aspects of society, carry out EC socialization training, build a comprehensive and three-dimensional EC training network, and expand the basis for EC personnel training. All walks of life in the society should pay attention to and care about the training of EC talents, support and participate in the training of EC talents, and promote the smooth operation of the socialized personnel training system.

2.3. Logistics Distribution in EC Based on Cloud Computing-Ant Colony Algorithm

Cloud computing is a new business model that provides services to users in an on-demand distribution based on massive computer resources. Let's take urban logistics distribution in EC as an example to illustrate the mathematical model of ant colony algorithm.

(1) Initialization of Pheromone Concentration

$$\tau_{ij}(0) = const \tag{1}$$

Among them: $\tau_{ij}(0)$ represents the pheromone concentration between city i and city j at the initial moment; const is a constant, and the value is generally 0. When the classic ant colony algorithm is not running, the pheromone concentration on all paths is 0.

(2) Update of Pheromone

During the transfer process of the ant colony, the residual information must be updated. At the same time, considering the volatilization of pheromone, the amount of information on the path (i, j) at time t+n can be adjusted according to the following rules:

$$\tau_{ij}(t+n) = (1-p) \times \tau_{ij}(t) \triangle \tau_{ij}(t)$$
$$\triangle \tau_{ij}(t) = \sum_{k=1}^{m} \triangle \tau_{ij}^{k}(t) \quad (2)$$

Among them, p represents the pheromone volatilization coefficient, and its value range is $p \subset [0,1]$. $\triangle \tau_{ij}(t)$ represents the pheromone increment on the path (i, j) in this cycle.

3. Investigation and Research on EC Personnel Training of "GIEU" Based on CCC

3.1. Purpose of the Investigation

In order to better achieve the training goals of EC professionals, in terms of curriculum and technical education, it is better to meet the actual needs of students and meet the needs of the market. This paper designed this questionnaire to collect information from schools, students, employers, etc., and grasp relevant data on personnel training and the status quo of talent demand, so as to provide a data basis for this research.

3.2. Investigation Method

In the specific investigation process, questionnaire surveys and interviews are mainly used. In the surveyed schools, students and graduates of EC majors, professional teachers and school leaders who are targeted at H colleges and universities are targeted for surveys, and the survey results are fully sorted and researched.

3.3. Survey Content and Distribution

Corresponding questionnaires were designed for students and graduates of H colleges and universities, and distributed to the outside world in the form of online platforms. In the questionnaire designed here, the main content involved is the learning situation of professional courses, the specific content, the mastery of professional ability, etc. A total of 1,000 questionnaires were distributed, of which 50 were distributed to teachers and 950 were distributed to students. 965 valid questionnaires were returned, and the questionnaire response rate was 96.5%.

4. Data Analysis of EC Personnel Training for "GIEU" Based on CCC

4.1. Investigation of Personnel Training Model

Table 1. Personnel training model

Personnel training model	Number of people	proportion
Combination of production and education, school-enterprise cooperation	444	46.01%
Modern apprenticeship	212	21.97%
Order form	269	27.88%
other	40	4.15%

The survey is the most suitable EC personnel training model, and the results are shown in Table

1: Among the 965 valid questionnaires, 46.01% think that the integration of industry and education and the school-enterprise cooperation model are the most suitable, and 21.97% think that the apprentice style is more suitable.

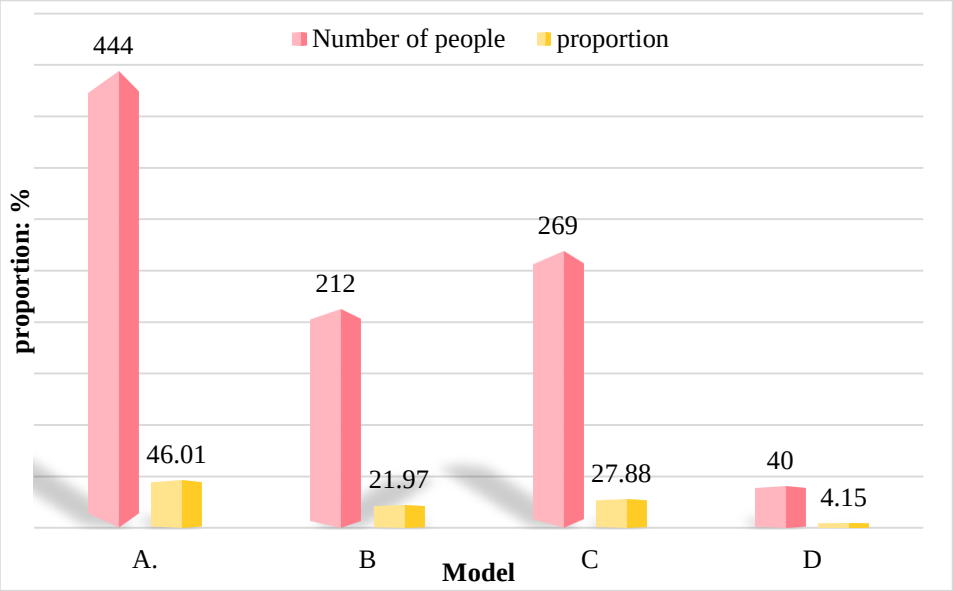

Figure 1. Personnel training model

From Figure 1, it can be concluded that the personnel training model of integration of production and education and school-enterprise cooperation is the most effective way to train EC professionals. Take the integration of production and education as the personnel training model, and carry out the construction of an integrated course system of theory and practice. Constructing teacher training construction that links the government, schools, enterprises and industries, deepening school-enterprise cooperation, and building a professional shared teaching resource library platform will help stimulate students' creativity and innovation. By building corresponding practice bases and setting up professional industries, it can also provide teachers and students with more opportunities to participate and better integrate knowledge and practice.

4.2. Effect of School-Enterprise Cooperation

Sorting out the evaluation questionnaire for the effect of school-enterprise cooperation, the results are shown in Table 2. 70.05% of the people think that the cooperation has little effect, 19.07% think that the effect is due to the effect, and 10.88% said that the school-enterprise cooperation is still under construction.

Table 2. Effects of school-enterprise cooperation

effect	Number of people	proportion
A Yes, more in-depth cooperation, better results	184	19.07%
B Yes, in form, not very effective	676	70.05%
C no	0	0
D Still under construction	105	10.88%

Combining Table 2 and Figure 2, it can be seen that school-enterprise cooperation is relatively small, and the company’s concept of participation is relatively weak. In face-to-face communication

with some professional teachers, it can be seen that the position of the enterprise is relatively passive in the course of school-enterprise cooperation. China has not shown its enthusiasm for participation, and the overall level of cooperation is relatively low.

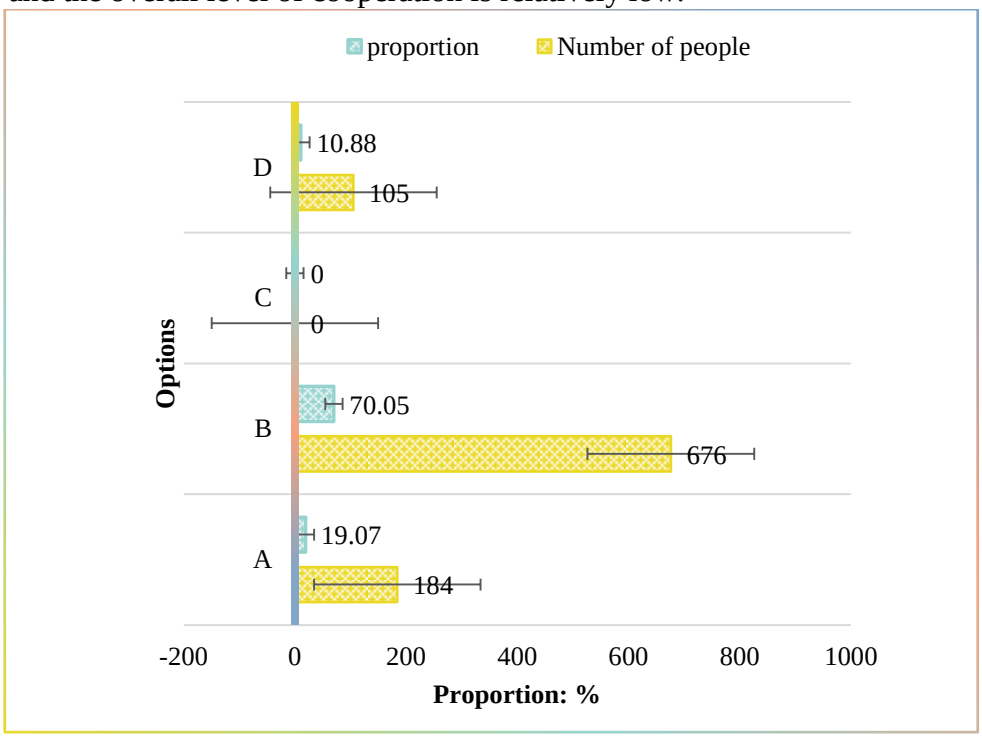

Figure 2. Effects of school-enterprise cooperation

5. Conclusion

At present, GIEU has more or less problems in EC talent training, which seriously affects the quality of talent training. Through in-depth enterprise surveys and online questionnaires, this article summarizes the status quo of EC talent training "GIEU", finds the existing problems, and specifically analyzes the reasons, and proposes "GIEU" from the four perspectives of government, universities, society, and enterprises.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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