

Construction of Humanistic Training Mode of Self-learning Applied Talents based on Internet of Things

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ABSTRACT

At present, both liberal arts majors and science and engineering majors are advocating the goal of cultivating applied talents, and strive to improve students' practical ability and innovation ability on the basis of enhancing students' mastery of theoretical knowledge. For the major of Chinese language and literature education in undergraduate colleges, its training goal is to cultivate applied talents. However, due to the influence of the traditional concept of attaching importance to the study of theoretical knowledge in the past, many difficulties have been encountered in the process of cultivating applied talents. If these problems can not be effectively solved, it is difficult to achieve the goal of cultivating applied talents. This paper focuses on the analysis and Research on the cultivation of application-oriented talents in Chinese language and literature education major of undergraduate colleges, hoping to summarize the problems existing in the current cultivation process of application-oriented talents in Chinese language and literature education major, and put forward some solutions and suggestions, in order to provide strong opinions and suggestions for the cultivation of application-oriented talents.

Keywords: Chinese language and literature; applied talents; education; innovation ability

1 INTRODUCTION

The cultivation of applied talents of Chinese language and literature education major in undergraduate colleges is not only of great significance for students' personal development, but also of far-reaching significance for promoting the development of the whole discipline. From the current teaching situation of Chinese language and literature education, there are mainly the following problems: the objective of applied talents training is not clear; the cultivation of students' application ability is not paid attention to in classroom teaching; the scientific and effective curriculum evaluation system is lacking; and the effective examination feedback mechanism is not established[1].

Due to the long-term influence of the traditional education concept in the past, it is difficult to change the education and teaching concept in the short term. At present, many undergraduate colleges and universities have not clearly established the goal of cultivating application-oriented talents in the process of talent cultivation, resulting in many students still trapped in the vicious circle of only knowing endorsement, It seriously affects the development of students' ability and personality. Moreover, due to the unclear training objectives, many teachers lack guidance in the teaching process, and still use the traditional teaching mode in the past. All these have

played a negative role in the cultivation of applied talents. Course teaching is an important part of cultivating students' ability. As long as the training goal is established, the teaching arrangement and the whole teaching process should be dealt with accordingly. However, many teachers do not pay attention to the cultivation of students' ability in the process of teaching. Instead, they blindly ask students to memorize by rote and check the recitation of students every day. To really master knowledge is not to memorize it by rote, but to consciously transform it into one's own knowledge reserve on the basis of full understanding. Only in this way can we really master this knowledge, otherwise we will just memorize it mechanically and forget it all after a period of time.

2 RELATED WORK

2.1 Definition of data mining

Most of the Chinese departments of some research universities in today's society only focus on the cultivation of academic research talents majoring in Chinese language and literature, thus ignoring the cultivation of humanistic application talents to a great extent. In order to

realize the goal of Chinese language serving the society, we should focus on the cultivation of humanistic applied talents in the major of Chinese language and literature from the following four aspects. (1) To formulate a practical talent training plan, this paper collects and sorts out the training plan by www. the formulation of the talent training plan in Colleges and universities should not only combine the teaching content and curriculum system of the school, but also comprehensively analyze the demand orientation of the talent market and the saturation of the professional talents in the society. Only in this way can we formulate a reasonable, scientific and distinctive talent training plan. As for the formulation of the training program for Humanities applied talents of Chinese language specialty, we need to pay attention to the following two points. First, when teaching students Chinese language knowledge, we should pay attention to the appropriate integration with other humanities knowledge courses. Applied talents emphasize the specific application of knowledge. The knowledge of Chinese language major has many similarities with other humanities courses, so the allocation of other humanities can enable students to form a complete humanities knowledge system. Second, we should not only integrate the education of various practical skills with the education of humanistic knowledge, but also combine it with the needs of the talent market, so as to truly achieve the goal of cultivating humanistic applied talents.

To change the teaching concept, the major of Chinese language and literature is a discipline with profound literary heritage. Therefore, in the teaching process, teachers' teaching concept and teaching mode are highly traditional and patterned. In order to achieve the goal of talent application-oriented talent training, teachers must change their teaching concept. Specifically, there are the following two main points: first, teachers should unify their ideas To raise awareness, we should incorporate the training objectives of applied talents into the teaching objectives, let students understand the importance of Chinese language knowledge in specific application, and let knowledge go out of the classroom and become a means and tool in daily work application. Second, the school should organize special teachers to teach in this regard, strengthen the research and discussion of teaching mode, actively learn from the successful experience of other colleges and universities in the cultivation of humanistic applied talents in Chinese language specialty, and put the cultivation of humanistic applied talents to a higher level.

2.2 Main steps of data mining

Specifically, a typical data mining process includes the following steps:

The change study in Li Nian is a subject with profound literary heritage. Therefore, in the teaching process, the teachers' teaching philosophy and teaching mode are highly traditional and patterned. The changes in the concept of applied talent training are as follows: we should make the training knowledge of applied talents specific, and let the knowledge go out of the classroom and become a means and tool in the application of daily work. Second, the school should organize special teachers to study the teaching mode in this regard, actively learn from the successful experience of the school in the training of Chinese language talents, reform and innovate the training methods of Chinese language talents, and the application-oriented training mode of talents majoring in Chinese language and literature has not yet formed a systematic teaching system, and the methods need to be explored. Many of the previous humanistic knowledge methods are no longer suitable for the cultivation of humanistic applied talents, so the school selects special teachers to conduct research on detours and formulate specific teaching objectives and corresponding teaching methods. The formulation of teaching methods must be combined with students' receptive ability and cognitive ability. Teachers should improve their own humanistic quality and cultivate humanistic applied talents in Sinology. Teachers are required to have a certain degree of literary and humanistic quality. First, in terms of humanistic knowledge literacy, Although the teacher has left, he should continue to excavate China's profound Han heritage, constantly improve the cultivation of humanistic knowledge, and then show a distinctive humanistic spirit. Second, as far as people know, teachers should not only act as tools, but also cultivate students' application skills, let students apply what they have learned, and take Chinese I knowledge as a means and tool to improve their own quality, rather than the ultimate goal of learning. The cultivation of humanistic applied talents in Chinese language and literature specialty is not only the requirement of the development of market talent demand model, but also a new topic put forward by the times. Based on the current teaching situation of Chinese language and literature in China and the transformation of teaching mode to humanistic applied talent training mode, it has brought great challenges to Chinese language major. Strengthening the research and discussion of this training mode can realize the great transformation of traditional major in China.

The data mining process is shown in Figure 1.

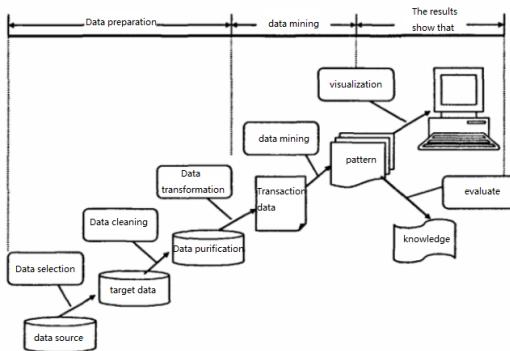


Fig. 1. Data mining process

3 DATA ANALYSIS

Although there are many problems in the cultivation of Applied Talents in the major of Chinese language and literature education, as long as these problems are found and corrected, the quality of talent cultivation in the major of Chinese language and literature education will be improved. In view of the above problems, this paper puts forward the following strategies: clarifying the training objectives of applied talents; paying attention to the rationality of curriculum teaching arrangement, highlighting the cultivation of students' application ability; constructing a scientific and reasonable curriculum evaluation system; establishing an effective examination feedback mechanism, etc[3].

3.1 Role mining based on double constraints

RBAC model has been adopted by many organizations as a standard method to implement security policy, which assigns limited resource access rights to roles and roles to users. As a key step of migration from traditional access control to RBAC, role mining has been widely studied. But even according to the business process of the enterprise, the role of mining can not be applied in practice immediately. For example, some roles have too many permissions and too large a scope to assign a single employee. Therefore, in the process of role mining, different types of constraints are usually considered in order to impose constraints on the generated roles[2].

$$\begin{aligned} \|\Delta x_{k+1}(t)\| &\leq k_f \int_0^t \|\Delta x_k(\tau)\| d\tau + \\ m_1 \int_0^t \|\Delta u_k(\tau)\| d\tau + m_2 \|x_d(t)\| + m_3 \|x_{k-1}(t)\| &= \\ f_0^t (k_f \|\Delta x_{k+1}(\tau)\| + m_1 \|\Delta u_k(\tau)\|) d\tau + m_2 \|x_d(t)\| + m_3 \|x_{k-1}(t)\| & \quad (1) \end{aligned}$$

UPA is transformed into bipartite graph representation, u represents user, P represents permission, (U, P) represents user permission assignment relationship, and a

complete bipartite graph represents a role. The result of role mining is that the bipartite graph of user permission relationship is added to the intermediate role node to form the corresponding tripartite graph. The bipartite graph and role mining results of user rights allocation are shown in Figure 2.

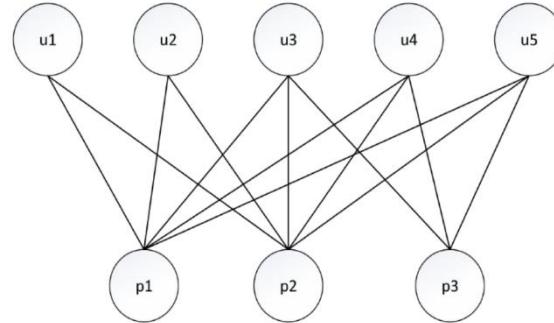


Fig. 2. User rights assignment (UPA)

Under the condition of given constraint, Q value is the minimum:

$$\forall 1 \leq j \leq m, \sum_{t=1}^m r_{jt} \leq MPC_{role} \quad (2)$$

The user role assignment relationship UA and the role permission assignment relationship PA enable:

$$\|UA \otimes PA - UPA\| \leq \delta$$

(3)

The optimization goal, opposite to the approximate role, does not pursue the minimum role set, but optimizes the number of mismatches between UAP and the generated UA and PA, expecting to reach a minimum.

3.2 Clarify the training objectives of Applied Talents

No matter schools, teachers or students, we should make clear the goal of cultivating applied talents. Especially school administrators, when making relevant decisions, must always take this training goal as the guidance[4]. The starting point and foothold of all decisions should be to cultivate applied talents. For teachers, we should also make clear the training goal, use the training goal of applied talents to guide the classroom design and arrangement, and strive to make all links helpful for the cultivation of applied talents. For students, they should realize that their development direction and goal is to grow into an application-oriented talents, so they should consciously cultivate their application ability in the usual learning process, never let themselves indulge in theoretical knowledge excessively, and should appropriately cultivate their practical ability. When we find that the classroom teaching activities deviate from the training

objectives of applied talents, we should also bravely and actively express our suggestions to teachers[5].

In the process of teaching, teachers must pay attention to the rationality of teaching arrangement and the cultivation of students' application ability. For example, some new forms such as small speeches, debate contests or essay writing can be set up in the consolidation and improvement link to encourage students to challenge themselves bravely, and enable students to learn new knowledge in the process of constantly trying, and constantly improve their practical ability and innovation ability in the process of using knowledge. In addition, teachers should convey some frontier information among industries to students, guide students to understand these information in time, and make sufficient preparation for employment. Constantly improve themselves, in order to be able to adapt to the current requirements of the industry. Guide students to realize the importance and necessity of improving application ability.

3.3 Constructing a scientific and reasonable curriculum evaluation system

Constructing a scientific and reasonable curriculum evaluation system is also the key to improve students' application ability. We should create a curriculum evaluation system that can be jointly participated by multiple subjects, especially the participation of students, so that students can actively participate in the evaluation and construction of the curriculum. Only by truly understanding students' ideas and opinions can we better promote students' development. Without the curriculum evaluation system developed by students, it is difficult to be applied to the practice process, and it is easy to cause the unscientific and unreasonable evaluation results, and ultimately affect the correctness of the curriculum evaluation results[6].

The purpose of examination is to let students understand their mastery of knowledge, but also to enable teachers to objectively and comprehensively understand their teaching situation. However, at present, many Chinese language and literature education majors have put all the papers on the shelf after organizing the examinations. Students only know how many points they have got in the examination, but they have no place to know why the wrong questions are wrong and what the correct solution is. At present, many Chinese language and literature education majors only input the examination results into the computer mechanically after organizing the examination, and do not make a comprehensive analysis of the examination results. They only know the ranking of the class, what are the weak links in the teaching process, and they do not make in-depth analysis and summary of the examination results.

4 EXAMPLE ANALYSIS

4.1 Training mode and path of humanistic applied talents in Chinese language and Literature Specialty

For a long time, the Chinese departments of some comprehensive and research universities have focused on cultivating academic research talents majoring in Chinese language and literature. The Chinese departments of some normal universities mainly train middle school Chinese teachers, and pay insufficient attention to the cultivation of Applied Talents Majoring in Chinese language and literature[7]. Accordingly, the relevant teaching reform and research are not carried out in depth. In recent years, with the development of university system reform and the improvement of the status of Chinese traditional culture at home and abroad, many universities of science and engineering have set up Chinese language and literature majors. How to run the specialty of Chinese language and literature well under the conditions of the new era and cultivate the applied talents of Chinese language and literature so that the talents of Chinese language and literature can be better, more in-depth service to society has become a hot issue for some scholars. Many relevant papers put forward some specific and detailed plans and Countermeasures on how to train undergraduate professionals of Chinese language and literature to keep up with the pace of the times and close to the social needs, the family composition of University applied talents is shown in Figure 3.

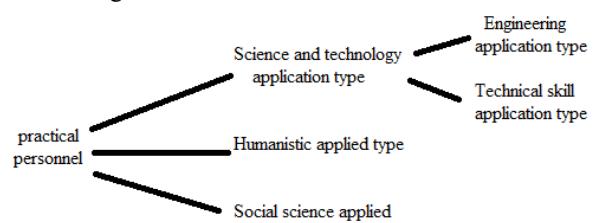


Fig. 3. Family composition of Applied Talents

Based on the existing research results, this paper puts forward the following ideas: explore and establish the training mode of humanistic applied talents in the undergraduate major of Chinese language and literature. The relationship between talent training mode and talent training goal needs to be analyzed[8]. The author believes that the connotation of training objectives focuses on the knowledge level that talents should achieve, that is, the level of talents; the connotation of training mode focuses on the knowledge structure and service orientation of talents, that is, the type of talents. The training objectives of

the undergraduate major of Chinese language and Literature (i.e. the expectations and requirements at the talent level) can be consistent (unique), which is the fundamental reason why the training objectives of the undergraduate major of Chinese language and literature formulated by domestic universities are the same[9]. However, the talent training modes of Chinese language and literature undergraduate majors (i.e. the expectations and requirements on talent knowledge structure and service orientation) can be diverse. Normal education and training Chinese teachers in primary and secondary schools is a relatively mature talent training mode for the undergraduate major of Chinese language and literature. Cultivating academic research talents is another training mode for the undergraduate major of Chinese language and literature. It can have some sub modes. For example, the Chinese base class in some key universities is a sub mode of academic research. Cultivating humanistic applied talents is a talent training mode that needs to be discussed and strengthened in the undergraduate major of Chinese language and literature[10]. It can also distinguish many different sub modes according to the specific knowledge structure and service orientation of talents. According to the author's view, the secretarial major and journalism major run by the College of literature or Chinese Department of some universities and in parallel with the major of Chinese language and literature can actually be regarded as two prominent sub models of the humanistic applied talent training mode of the undergraduate major of Chinese language and literature; At the same time, some other existing and possible sub models need to be clarified in theory and practice.

4.2 *Solutions for the cultivation of Applied Talents in Chinese language and Literature Specialty*

(1) Break students' misunderstanding. Students will feel that the major of Chinese language and literature is a boring subject. The main reason is that the professional color of Chinese language is too strong[11]. Therefore, in order to change students' misunderstanding of Chinese language and literature specialty, strengthen students' education and cultivate applied talents of Chinese language and literature specialty, we should strengthen the cultivation of students' ability and open students' vision. In class, we should teach in a vivid way so that students will not feel boring in the process of learning. Although most teachers majoring in Chinese language and literature are relatively older lecturers or professors, they have long been used to their own teaching mode in the process of teaching. Most teachers majoring in Chinese language and literature have a more traditional teaching mode, so that the student union thinks that the teacher's class content is boring and

the teaching process is boring. So you will lose more interest in this subject. Therefore, teachers actively mobilize students' enthusiasm in order to better cultivate applied talents majoring in Chinese language and literature[12].

(2) Adjust the course content and change the teaching mode. As the major of Chinese language and literature is a relatively unique discipline, its unique characteristics are strong in professional nature and small in discipline compatibility. The main professional courses include ancient Chinese, modern Chinese and so on. In this way, the limitations of the discipline are quite large, so it is necessary to adjust the course content[13]. Teachers should also change their teaching mode to a certain extent, not only pay attention to students' basic knowledge. It can appropriately weaken professional learning and strengthen students' practical application ability. In this aspect, students can carry out discipline practice in order to extend students' learning interest and learning subjective initiative. Adjusting the content of the course can improve students' interest in learning. Changing the teaching mode can enhance students' subjective initiative in self-learning and strengthen their skills in practical application. In this way, we can better build students into applied talents needed by the society[14].

(3) Formulate a perfect evaluation scheme. For China's education model, the best detection model is assessment. Only in this way can we strengthen students' self-learning ability and make students willing to study a subject in Shenzhen. Especially for the major of Chinese language and literature, which has a strong professional nature, it is difficult to evaluate students' learning achievements without a perfect evaluation scheme. Therefore, it is very necessary to formulate the evaluation scheme. In order to cultivate professional application-oriented talents, we should strictly teach, strictly assess, and carry out practical application skills training. Therefore, in addition to the necessary routine examination and examination, professional skill examination and teaching practice examination can be added accordingly. Strict examination procedures and examination contents are not only the best way to test students' learning achievements, but also to strengthen the ability to cultivate applied talents.

5 CONCLUSION

Chinese language and literature terminology Chinese language and literature series is not only the mainstream specialty in the higher education system of a country or nation, but also the core and main specialty to improve the language of the whole people. It meets the general social needs, and the employment rate is generally high; It meets the needs of the overall discipline layout of most

ordinary colleges and universities and is one of the important majors for the construction and development of most ordinary colleges and universities. In a sense, without this major, the grade of many colleges and universities, their contribution to local areas and their impact on the whole country will be more or less discounted. This paper mainly introduces some problems existing in the major of Chinese language and literature, which affect the students' professional quality and practical ability to the society. The next two parts formulate corresponding plans for these two aspects one by one, and finally analyze the modern reform content of the teaching of this major. Relevant departments, schools, teachers and students should attach importance to the cultivation of applied talents, and jointly promote the development and progress of Applied Talents Cultivation and education. It is believed that with the joint efforts of relevant departments, schools, teachers, students and people from all walks of life, Chinese language and literature education will cultivate more high-quality applied talents.

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