



Research on Human Resources Situational Teaching Model Based on Social Information Orientation

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Abstract. With the deepening of the economic system transition, the importance of human resource management in enterprises is increasing. Therefore, in order to further optimize the human resources situational teaching model, the human resources situational teaching model oriented to social information is designed. Using VR technology to build a virtual teaching platform, and set the hardware parameters of the platform. Determine the teaching content, clear teaching objectives, the use of the form of group division, the completion of situational teaching process. Using the analytic hierarchy process to evaluate the results of classroom teaching content design, to ensure the effectiveness of teaching. So far, the design of human resources situational teaching mode based on social information-oriented has been completed. Compared with the traditional teaching mode, the teaching mode designed in this paper can promote the improvement of students' comprehensive learning ability.

Keywords: Social information-oriented · Human resources curriculum · Teaching model · VR platform

1 Introduction

In recent years, with the rapid development of China's economy, with the deepening of cultural and economic exchanges at home and abroad, more and more large joint ventures have been set up in China, and the implementation of efficient personnel management has become the goal of enterprises. Therefore, higher requirements have been put forward for human resources management [1, 2]. Human resource management is the overall allocation of labor resources within a certain scope, and realizes the optimal allocation and maximum utilization of labor resources by certain principles. In our country each big enterprise establishes a personnel resources management department, enhances the human resources efficiency as the goal, and introduces the specialized talented people to enrich the strength positively. This specialized talented person's demand is also increases with the tide. In recent years, colleges and universities have set up human resources management major, aiming at training high-quality talents, and continuously providing

high-quality personnel management talents through the implementation of high-quality teaching mode. Schools should pay attention to the integration of theory with practice in the teaching of human resources, rely on the theoretical basis, and understand and absorb all kinds of knowledge learned through carrying out simulation exercises. For example, students should be involved in the main steps in the process of simulation recruitment, so as to lay a good foundation for future adaptation. As the designer of human resource course, human resource teaching should focus on the characteristic teaching mode on the premise of carrying out the educational policy of “practicality, practicality and sufficiency”. At present, many researchers and educators have actively explored how to integrate situational teaching into human resources teaching, but seldom involved in the use of situational teaching in human resources teaching.

Situational teaching refers to a cognitive method that enables the educatees to understand the teaching content by simulating or reproducing the environment and process of the occurrence and development of events or things so as to improve their abilities in a short time [3, 4]. In the process of personal experience, the students can understand the connotations of knowledge, improve their ability and form their own values. Situational teaching can help students improve their thinking ability in images, realize the status, situation and working essentials of some roles, and enhance their ability to predict and deal with practical problems.

Most schools adopt the traditional, boring and cramming teaching methods, and pay little attention to arousing students' interest and motivation in human resource management, which makes them unable to express themselves freely. Some students are as mechanical as reciting texts in the process of human resource management, others lack fluency and accuracy in their expressions because of their lack of confidence, and still others are unable to use the human resource theories they have learned. These invalid expressions are often repeated mechanically in the classroom and are not corrected in a timely manner. Therefore, in this study, the design of the social information-oriented human resources situational teaching model to improve students' learning ability and the application of knowledge.

2 Research on Human Resources Situational Teaching Model

In order to ensure the rationality of the design of HR situational teaching model, the design process is described as follows (Fig. 1):

Using the above design process, the situational teaching group teacher gives the theory and operation training according to the basic theory that the students should understand. Teachers and students plan and prepare the process of rehearsal according to the teaching content and goal. In the process of implementing situational teaching, students are the main body of teaching.

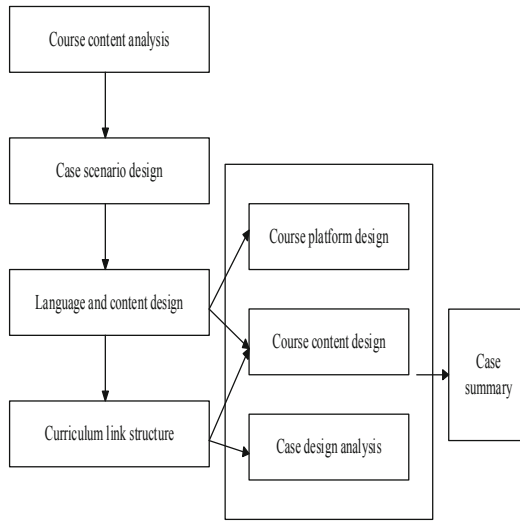


Fig. 1. Human resources situational teaching model

2.1 Construction of Situational Teaching Platform

In order to improve the authenticity of situational teaching, it is necessary to build a corresponding situational teaching platform. In this study, the platform is set up as a virtual reality teaching system based on VR technology and applied in multiple platforms. As a result, five pieces of software have been selected for the technical architecture of the teaching system, namely Autodesk Maya, Adobe Photoshop, Final Cut Pro, Adobe Premiere, Unity3D [5, 6].

When the pre-preparation is completed, then according to the content, text and images generated by the Photoshop editing layout into a display board map. Maya is responsible for presenting the design of the exhibition hall as a model. Final Cut Pro, Premiere, edits human resources instructional content for video and audio materials, and so on. The above four software content, respectively, into the integration of Unity3D, and then add interaction and lighting and other rendering. Finally, the optimized output is the executable version.

The human resources VR teaching platform’s demonstration scene altogether divides into an initial introduction interface and three main content interfaces. The exhibition design of each interface should not only show the different styles and feelings of each case, but also let the students understand the content and situation of the case clearly. In the initial design of the interface, consider that this scenario is the first scenario in which the student enters the case. First impressions tend to dominate the viewer’s mind and to a large extent determine whether a case is appealing. Therefore, the design should not only let people have the feeling of immersion, but also have a realistic experience. In order to ensure the effect of VR platform, the hardware requirements of the situational teaching platform are set as follows (Table 1).

Table 1. Hardware requirements of situational teaching platform

Direction of use	Device name	Parameter
Control terminal	Video card	64 MB
	Memory	16 GB
	CPU	Intel CPU&“Leopard” 10.5
	Operating System	Windows 10
	Database	MY SQL 2016
	Macintosh	Intel 64-bit processor
Client	Video card	NVIDIA GeFore GTX560
	Memory	1 GB
	CPU	Intel Core Duo
	Operating System	Mac OS X 10.5
	Database	MY SQL 2016

According to the hardware parameters, the platform is constructed, and the required course content is introduced into the platform as the basis of situational teaching, providing a hardware basis for its vivid classroom teaching.

2.2 Design of Classroom Teaching Content

The creation of human resources teaching is a process. Compared with the conventional teaching mode, situational teaching is difficult. From the initial determination of teaching content, clear teaching objectives, to the creation of the situation, the introduction of the situation, and finally, to guide students to actively build knowledge, it can not be completed in the classroom temporarily. The teacher must analyze the teaching content carefully before class.

First of all, to determine the content of teaching, clear teaching objectives. Clarifying specific teaching objectives in combination with social information [7]. The goal of knowledge is to make the students understand the composition of human resources, the goal of emotion is to stimulate the students' love for the courses of human resources, and the goal of ability is to cultivate the students' ability to independent inquiry and cooperative learning, to improve the ability of language expression and the ability of high-level thinking. In the process of teaching, we insist on the principle of combining theory with practice. That is, in the process of teaching, we should teach professional knowledge, professional skills and combine theory with practice to improve the students' theoretical level and practical ability.

In the class, the students participate in the group to explain, actively reveal their ideas, discuss and communicate with the group members, and the other members of the group to supplement and improve the materials. Through active observation, association, comparison and generalization, meaningful knowledge transfer learning is conducted on the basis of learning from each other's strong points to offset their weaknesses.

In the design of the teaching model, teaching methods are more diverse. Situational teaching method and cooperative inquiry teaching method are mainly used to carry out situational teaching of human resources. Situational teaching method is to put students in a series of rich teaching situations, the teaching content and the real situation, so that students in meditation in search of their own answers. The cooperative inquiry method is a teaching method in which the selected problems are discussed and analyzed in the way of group cooperation, student-student cooperation and collective cooperation, and the final research conclusion is obtained through joint efforts [8, 9]. This method fully embodies the leading role of teachers and the principal position of students. In human resources teaching, teachers do not give ready-made answers to students, but let them explore the answers. At the same time, it also emphasizes the setting of problem situation, which makes students enter the situation naturally and inspires students' study enthusiasm. The thought of cooperation and interaction runs through the whole of teaching, inspires students to connect with life practice and constructs a meaningful connection with learning knowledge.

2.3 Teaching Context Design Evaluation

In order to ensure the reasonableness of the situation design, the author evaluates the result of the situational teaching of human resources. First of all, define the problem of situational teaching and analysis of human resources. According to the nature of the problem and the overall goal to be achieved, the complex problem is decomposed into component factors, which are divided into different groups according to their attributes, thus forming different levels [10, 11]. All the elements in the same layer dominate some or all the elements in the next layer while all the elements in the next layer dominate the same layer, which constructs a hierarchical structure reflecting the essential attributes and internal relations of the system.

The hierarchical structure can be generally divided into: the target layer, that is, the highest level, in which there is only one element, which is the overall goal or ideal result to be achieved for the problem; the intermediate level is the criterion layer, also known as the sub-objective layer, factor layer, indicator layer, criterion layer, etc., the measures and criteria to be adopted by the elements in the layer, which can be divided into the criterion layer and sub-criterion layer according to the size and complexity of the problem; the lowest level is the scheme layer, measure layer or reason layer, which is composed of alternative schemes, corresponding measures or the most basic risk factors to achieve the goal [12, 13]. Based on the hierarchical structure model, starting from the second layer, a judgment matrix X is constructed by pairing the relative importance of the elements of the same layer that belong to each criterion in the next layer and combining with the 1–9 scaling method proposed by T. L. Saaty. Assuming that there are n elements X_1, X_2, \dots, X_n in a layer H subordinate to some judgment criterion in the next layer, If X_i is compared with X_j , x_{ij} is obtained, then X_i is compared with X_j , $x_{ij} = 1/x_{ji}$ is obtained, thus n order judgment $X = (x_{ij})_{n \times n}$ can be obtained. The matrix has the following properties: $x_{ii} = 1$, $x_{ij} > 0$, $x_{ij} = 1/x_{ji}x_{jk} = x_{ik}x_{jk}$. The corresponding judgment matrix can be obtained by this setting as shown below (Table 2).

The relative weights of the elements to be compared are calculated by the judgment matrix, that is, the weights in single order of hierarchy. First, the maximum eigenvalue

Table 2. Situation teaching design effect judgment matrix

<i>H</i>	<i>X</i> ₁	<i>X</i> ₂	...	<i>X</i> _{<i>n</i>}
<i>X</i> ₁	<i>x</i> ₁₁	<i>x</i> ₁₂	...	<i>x</i> _{1<i>n</i>}
<i>X</i> ₂	<i>x</i> ₂₁	<i>x</i> ₂₂	...	<i>x</i> _{2<i>n</i>}
...
<i>X</i> _{<i>n</i>}	<i>x</i> _{<i>n</i>1}	<i>x</i> _{<i>n</i>2}	...	<i>x</i> _{<i>n</i><i>n</i>}

α_{\max} of the matrix *X* is calculated, then the eigenvector *V* is obtained by using the eigenequation $X = \alpha_{\max}$. Then the *n* components of the vector are the weights of the corresponding *n* elements after *V* normalization [14, 15]. When the precision is not high, the ranking weight vector can be calculated by approximate eigenvalue methods such as sum method and square root method. In addition, the use of MATLAB software can also be very convenient for accurate calculation.

First normalize the column vectors of the matrix *X* to get the matrix $F = (f_{ij})_{n \times n}$. Then sum the elements in *F* row by row, that is:

$$v_i = \sum_{j=1}^n f_{ij} \tag{1}$$

Among them,

$$f_{ij} = x_{ij} / \sum_{j=1}^n x_{kj} \tag{2}$$

Finally, *V* should be normalized as a weight vector [16]. The maximum eigenvalue α_{\max} of the matrix *X* can be approximately calculated from the following formula:

$$\alpha_{\max} = \frac{1}{n} \sum_{i=1}^n \frac{(XV)_i}{v_i} \tag{3}$$

In an expression, $(XV)_i$ represents the *i* element of a vector *XV*. Using the above formula to evaluate the effect of situational teaching design, in order to ensure the effectiveness of teaching model. The above design content is integrated, so far, based on the social information-oriented human resources situational teaching model design is completed.

3 Experimental Analysis

3.1 Experimental Environment Settings

In this part, I will carry on the teaching practice to test the validity of the teaching model, analyze the questionnaire, interview survey and the academic achievement analysis, and

draw the conclusion, in order to provide one kind of strong implementation teaching model for the human resources curriculum, help the student to understand the science essence, promote the science accomplishment.

This practice research is mainly based on questionnaires, supplemented by interviews. The experimental class and the control class are selected as the experimental subjects, and the control class is taught in the integrated mode of situational teaching. The experiment lasts for one semester.

In this experimental study, the situational teaching model of human resources is independent variable, and the learning interest, human resources management ability and level of students in experimental class and control class are dependent variables. The experiment proves that the situational teaching mode of human resources can enhance students' interest in learning and improve their communicative competence and level.

The subjects of this study are 400 students of public administration at a normal university. Two classes are selected as the experimenters in each grade. Class A is the experimental class and Class B is the control class. Questionnaires were distributed to both classes, and the response rate was 100%.

3.2 Experimental Procedure Setup

In the preparation stage of the experiment, questionnaires and pre-experiment tests were carried out in the experimental class and the control class to find out the students' interest and attitude towards the human resources management course, and to analyze the pre-test scores of the two classes; interviews were conducted with the teachers who listened to the lectures to find out the students' enthusiasm for learning the human resources course and their performance in the class.

In the experimental stage, the situational teaching model of human resources was used in the experimental class for 18 weeks, while the traditional teaching model was still used in the control class. At the 8th and 18th week, the middle and late tests were carried out and the results of experimental class and control class were analyzed. At the end of the experiment, the students were investigated by questionnaires and the results were analyzed. Both oral test and paper test are included in the experiment. The test results are graded on a percentage basis. Among them, oral test results account for 60%, and written test results 40%. At the same time, it analyzes the students' ability to understand the knowledge of human resources and the ability to manage human resources, in order to achieve the design of teaching model in-depth study.

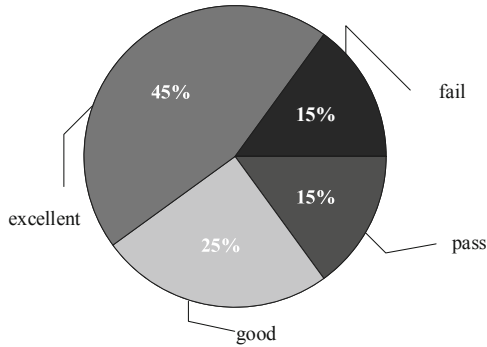
3.3 Analysis of Experimental Results

Through the above results, we can see that the teaching model designed in this paper plays a certain role in improving students' HR course examination results. Through comparison, we can see that the average score of the designed teaching mode is higher than the original teaching mode. And the design of teaching model for freshmen who have just come into contact with human resources management courses more useful. It can be seen that the design of teaching model has the corresponding scientific nature (Table 3).

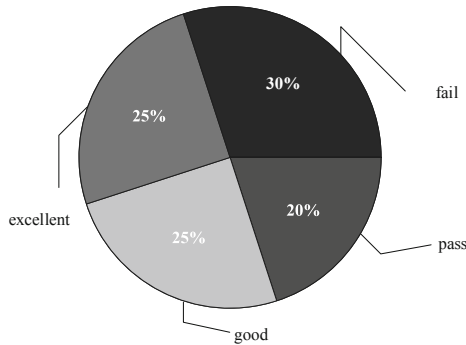
Table 3. Comparison of mean scores of students in human resources courses

Grade	The average score of the design teaching model	Average score of original teaching mode
Freshman year	95.1	93.5
Sophomore	94.5	92.15
Junior year	95.5	90.0
Senior year	92.7	88.5

In order to get the influence of design pattern and original pattern on students' learning achievement, the change of students' learning attitude will be reflected in the form of images. Students' HR courses are divided into four parts: excellent, good, qualified and unqualified, and the differences between the original model and the design model are compared (Fig. 2).



(a) Results of the use of design patterns in the text



(b) Results of use of the original model

Fig. 2. Student HR achievement chart

Through the above research results, we can see that the teaching effect of the design model is better, using this model can effectively improve students' learning attitude, and effectively enhance students' HR exam results, and enhance students' learning enthusiasm (Table 4).

Table 4. Average human resources knowledge comprehension ability score

Grade	The average score of the design teaching model	Average score of original teaching mode
Freshman year	4.35	4.05
Sophomore	4.25	3.64
Junior year	4.10	3.58
Senior year	4.10	3.55

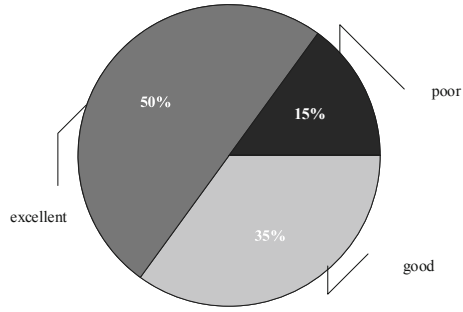
Through the above research results can be seen, the design of teaching model in the use of human resources effectively enhance the understanding of knowledge. The average score of the designed teaching mode is better than that of the original teaching mode. Therefore, adding situational teaching to the original teaching mode can enhance students' perception and learning ability. Combining this result with the above investigation results, we can see that the designed situational teaching of human resources plays an auxiliary role in students' learning (Table 5).

Table 5. Average human resources management competency score

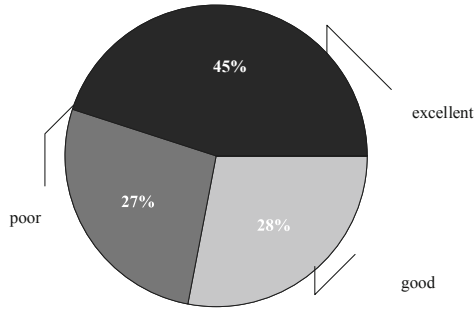
Grade	The average score of the design teaching model	Average score of original teaching mode
Freshman year	4.05	3.95
Sophomore	4.25	4.25
Junior year	4.25	4.30
Senior year	4.50	4.30

Through the above results, we can see that the teaching model designed in this paper plays a certain role in promoting human resources management ability. Students' ability of human resource management directly reflects the advantages and disadvantages of educational methods. Through the analysis of the above research results, the comprehensive ability is divided into three states: excellent, good and poor, and the differences between the original mode and the design model are compared (Fig. 3).

Through the above research results can be seen, the design of teaching model in the use of better results, can effectively enhance the comprehensive learning ability of human resources courses. After using the original teaching mode, the students' comprehensive ability is obviously lower than the teaching mode designed in the text. Through the above



(a) Results of the use of design patterns in the text



(b) Results of use of the original model

Fig. 3. Embodiment of students' human resource management ability

research results can be seen, the design of teaching model in the use of human resources can achieve the current teaching objectives. Applying the teaching mode of design in this paper to the real life can effectively improve the teaching effect and achievement of human resources course.

4 Conclusion

The application of the teaching model in this study provides advanced means for human resources teaching, ensures and improves the quality of professional teaching, and enhances the pertinence and practicability. On the background that many enterprises integrate mobile application into human resource management, the follow-up development of teaching mode can focus on this aspect, and realize the necessary links of human resource management in enterprises. Teachers and students complete part of learning tasks through the mobile terminal, which can improve the convenience of teaching mode and improve students' understanding of human resource management.

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