

# The Application of Virtual Simulation Situational Practice in Management Course

Rongpin Huang<sup>1</sup>, Feng Wei<sup>1,2,\*</sup> and Zhiguo Bian<sup>1</sup>

<sup>1</sup> School of Economics and Management, Liuzhou Institute of Technology, Liuzhou, Guangxi 545616, China

<sup>2</sup> School of Economics and Management, Guangxi University of Science and Technology, Liuzhou, Guangxi 545006, China

\*Corresponding author. Email: 958194953@qq.com

## ABSTRACT

In order to solve the problem of too much theoretical knowledge and not enough practical teaching content in the teaching process of *Management*, this paper explores the method of integrating virtual simulation context-based practical teaching into theory teaching based on the teaching method of combining theory and practice in *Management*, and proposes a specific method of virtual simulation context-based practical teaching design to help students improve their understanding of management theory, and then cultivate students' management competence; This will help students improve their understanding of management theory and develop their management skills, management professionalism and practical innovation ability.

**Keywords:** *Virtual Simulation; Practical Teaching; Instructional Design; Management*

## 1. INTRODUCTION

The combination of theory and practice is the eternal theme of education[1]. Theory and practice are two complementary teaching links, only one of which will greatly reduce the teaching effect. The effective combination of theory and practice in all aspects of teaching is a necessary means and method to achieve the ideal teaching effect and truly complete the teaching objectives. The combination of theory and practice reflects the student-centered educational philosophy so that students can learn to use theory while learning theory. The teaching method of combining theory with practice is the key to maintaining classroom vitality, and also an important method to improve teaching quality and effect.

## 2. PRESENT SITUATION AND PROBLEMS OF MANAGEMENT TEACHING

*Management* is a basic course under the category of management discipline. The theory of management originates from practice at all times and all over the world. Modern *Management* describes and summarizes its rules by analyzing business activities. The purpose of learning management theory is to guide management practice in different situations according to this law, which can be said to originate from practice and return to practice. The curriculum integrates the management ideas of Eastern and Western countries, systematically introduces knowledge from the perspective of the evolution of management ideas and management functions, so that students can develop

basic management quality and skills after learning, and you can think deeply about management problems, and initially have the awareness and ability to use modern management knowledge to observe, analyze and solve the management problems of industrial and commercial enterprises. For a long time, the teaching of *Management* has focused on imparting theoretical knowledge and ignored practical teaching[2]. There are mainly the following problems.

### 2.1. The traditional teaching method is single

The teaching of *Management* course mostly taught in a teacher-tutor, student-listener format. This is a kind of "cramming" teaching method, that is, teacher-led, in-class teachers explain the theoretical knowledge in the teaching materials systematically and comprehensively to students in combination with their own understanding and research, supplemented by the analysis of management cases at home and abroad. Although this "teaching + case" teaching method can impart theoretical knowledge to students, it is difficult to expand students' thinking. The classroom atmosphere is often dull, and students' enthusiasm and initiative are difficult to mobilize, lacking creativity.

### 2.2. The lack of students' practice leads to poor understanding of the theory

The *Management* as a basic course is mostly opened in the first grade of students. Objectively speaking, students in the process of learning because of their own shallow social experience and blank enterprise practical experience, lack of awareness of enterprise management practice, so it is difficult to truly understand the essence of management

theory and case. Students can only memorize the concepts and principles and do not understand the real reasons, which will eventually lead to students' low enthusiasm for the curriculum.

### ***2.3. Teachers always follow the book***

The research object of *Management* is modern enterprises, and the lack of practical experience in enterprise management by teachers is a common problem in many universities. Teachers in the teaching process theory and practice are out of touch, limited to the teaching of textbook theoretical knowledge; because there is no rich practice case support, theoretical knowledge becomes more rigid abstract, boring. This makes it difficult for students to understand, grasp the key points, and cultivate and train students' ability to find, analyze and solve practical management problems.

In summary. After years of practical teaching, we found that *Management* teaching because of the lack of practical teaching link is prone to students only grasp the theory, and cannot apply the knowledge to practice. This is the difficulty in curriculum reform. For talents cultivated in application-oriented universities, learning to use theory is more important than research theory. *Management* is highly theoretical, and the mere use of the teaching form of "lecture + case" cannot reach the level of applying theory.

## **3. NECESSITY OF INTRODUCING VIRTUAL SIMULATION SITUATIONAL PRACTICE INTO MANAGEMENT TEACHING**

### ***3.1. Practical teaching can better mobilize the enthusiasm and creativity of students***

In terms of teaching, any theory without practice is inevitably boring. It is not only difficult to arouse students' interest, mobilize students' enthusiasm, but also difficult to leave a profound impression on students. Its educational effect can only be greatly reduced and half the effort. Only by respecting the dominant position of students and providing opportunities for students to experience can they form a profound cognition and leave an unforgettable impression. In this case, it can naturally stimulate students' learning enthusiasm and interest. Only in this way, the teaching quality and teaching effect of the course will be improved, and students can master knowledge more firmly.

### ***3.2. Genuine knowledge comes from practice***

American educator Suna Dandek once said, "Tell me, I will forget. Show me, I may remember. Involve me, I will understand". Anything only practice, you will have

experience and get the truth. Management theory comes from management practice, and management practice is always the source of management theory. The tree of management theory can only be evergreen if it is rooted in management practice. As far as the theoretical knowledge of *Management* is concerned, it is a summary of management practice, which is often characterized by strong generality and high abstraction, and is generally not easy to understand and digest. But even if management theory is profound and abstract, it can always find fresh specimens and materials in the soil of management practice.

### ***3.3. Using modern information technology to simulate the real situation, breaking the existing deadlock***

Management practice can be implemented in many ways. For example, visiting enterprises, participating in internships, doing part-time work, watching enterprise management training videos, attending lectures, etc. These can all obtain direct or indirect management practice experience, but because the influencing factors of management activities are complex, the activity cycle is long, the space is wide, the phenomenon is irreversible, the researchers are inaccessible, and the cost is high, the risk is high, and the practice is difficult. It is difficult for students to fully access the various processes and core business of enterprise management in the short term, and the role of practice is limited. The virtual simulation system built by modern information technology can move the 'enterprise' into the campus, and rapidly increase the students' enterprise practice experience through the scene-based practice teaching of role playing. These specific accessible scenarios, guide students to explore their management needs and change passive learning into active learning.

## **4. APPLICATION OF VIRTUAL SIMULATION SITUATIONAL PRACTICE TEACHING IN MANAGEMENT**

### ***4.1. The Whole thought***

As mentioned above, the lack of teachers and students' practice has brought great trouble to the course teaching of *Management*. In order to ensure the quality of teaching, how to break through the barrier of practical experience, our innovative curriculum reform is to build a management practice situation for students. The virtual simulation technology ARE practice platform is used to create a real scene for students, and realize the scene teaching. Finally, we can learn, understand and apply theoretical knowledge in practice.

## 4.2. The Concrete ways

The traditional teaching method is one-way knowledge dissemination with teachers as the main body and students as the receptor. This way of learning ignores students' self-learning ability and turns to learn into simply instilling knowledge. Students are in a state of passive acceptance, learning efficiency is low, will not apply knowledge, and students' practical ability is poor, divorced from social needs. The application of virtual simulation situational practice teaching in the course teaching of *Management* is to adhere to the student-centered education concept, to the needs of students as the guidance, through the ARE virtual simulation experiment platform, students play a role in stimulating the real scene of the enterprise, quickly and comprehensively understand the enterprise to help students find their own needs for management knowledge, so as to change passive learning to active learning.

### 4.2.1. Morality Education

Teachers should not only teach but also educate people. Moral education is in the first place. Under the background of higher education reform, curriculum ideological and political education has become a key word. Curriculum ideological and political education is a kind of comprehensive education concept that takes all kinds of courses and ideological and political theory courses together in the form of building a whole-staff, whole-process and whole-course education pattern, forms a synergistic effect, and takes "cultivating morality and cultivating people" as the fundamental task of education. Starting from the nature and knowledge characteristics of the course of *Management*, the teaching design in the course takes the socialist core values as the direction, strengthens the "four consciousness", strengthens the "four confidence", achieves the goal of "two maintenance", and takes collectivism, team spirit, professional consciousness, innovation spirit and struggle as the specific content. Many management theories, management methods and tools originating from western countries are extracted from the teaching of Chinese culture genes, which are transformed into socialist core values, so as to guide students to serve the grand goal of building socialism with Chinese characteristics and realizing the Chinese Dream of the great rejuvenation of the Chinese nation. This greatly activates the moral education function of the course, realizes the synergy of subject knowledge and ideological and political education, and also makes our teaching guide and promote students to carry out a valuable leading and deep learning of Chinese feelings[3].

### 4.2.2. Increases practice teaching

ARE virtual simulation practice platform includes virtual simulation experiments for corporate cognition and operation, which quickly supplements the lack of corporate

practice, and combines the theoretical knowledge of management in the process to guide students to understand and apply theoretical knowledge. Taking management of engineering management and engineering cost as an example, in the course arrangement, we innovatively decompose the total course hours of 32 hours into 20 theoretical hours and 12 experimental hours. After learning the basic management concepts and functions, through the understanding of enterprise and operation virtual simulation experiment to understand and apply theoretical knowledge.

Through the introduction of 'virtual simulation experiment teaching of enterprise cognition and operation' in the teaching of *Management*, the 'ARE enterprise virtual simulation teaching platform' based on AR + perception technology is used to simulate the visual scene of enterprise operation, so that students can understand the organizational structure of enterprises, feel the real work and business of enterprises in a real dynamic scene, comprehensively understand the laws and processes of enterprise operation activities, cultivate students' global view of enterprise organization personnel, property, production, supply and marketing, so as to master the tools and methods of enterprise management decision-making in *Management*, comprehensively use relevant professional knowledge of economic management, improve decision-making and analysis ability, post and team cooperation ability, independent learning ability, stimulate students' innovative spirit, and cultivate innovative management talents with information management and control consciousness[4].

The virtual simulation experiment provides a visual and interactive enterprise reality for students through AR and intelligent sensing equipment, and presents the most typical business data and cases of enterprises[5]. In the visual enterprise scenario, the actual operation modes of three enterprises, namely collaborative planning, production and marketing collaboration and collaborative procurement, are simulated. Through independent curriculum design, scene perception teaching and enterprise case teaching, a variety of participatory teaching modes such as role playing and scene simulation are realized. And in accordance with the business-driven tasks, the application of ERP system for information management team procurement, warehousing, finance, production, sales and management processes.

## 5. INNOVATION OF VIRTUAL SIMULATION SITUATIONAL PRACTICE TEACHING

### 5.1. Virtual simulation in the application of modern education technology, the "enterprise" into the campus

The research object of *Management* is the modern enterprise organization. To get rid of the dilemma that

enterprises are difficult to organize and have little effect in participating in internships, ARE virtual simulation modern education technology is applied to move the “enterprise” into the campus, so that students can understand the overall picture of the enterprise and the main business processes without leaving the school.

### **5.2. Role playing Simulation “workplace” comprehensive training**

In the process of enterprise cognition, students are divided into six groups to simulate the main organizational structure members of a typical manufacturing enterprise. Through their own cognition, they are engaged in the competition of CEO or ordinary management posts, and experience the post authority and responsibility of the workplace in advance to cultivate students’ professional consciousness.

### **5.3. Reform the assessment model and create a diversified assessment system**

Subject diversification is evaluated by individual students, student groups and instructors. Diversification of content is the completion of the course content that attaches importance to theoretical knowledge and practice, both operational assessment points and quality assessment points. The diversification of assessment time is that the assessment points are usually and at the end of the period, focusing on process assessment.

The combination of theory and practice, the virtual simulation situational practice teaching is applied to the teaching of *Management*, which enhances the breadth and depth of practice, so that students have a new understanding of *Management* and increase their interest in learning. Through the practice teaching link to cultivate students' cognition of management positions, cultivate team cooperation ability and communication ability, enhance students' self-confidence, shorten the career growth cycle, improve students' professional knowledge mastery ability, realize the application of learning, in line with the training goal of compound talents[6].

## **6. CONCLUSION**

This paper discusses the necessity of adding virtual simulation practice in *Management* course from the problems existing in the teaching process, and proposes the

method of applying virtual simulation practice in the *Management* course, and briefly discusses the important role of virtual simulation practice in improving the teaching effect of management course, which provides some reference for the teaching reform of management course.

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## **REFERENCES**

- [1] Wang Qian. Exploration on Teaching Mode Reform of Management Course from the Perspective of Integration of Industry and Education[J]. *Modern Educational Equipment in China*,2021(03):111-113.
- [2] Zhang Yueqin. ‘Curriculum Ideological and Political’ Teaching Reform is carried out in the course of Principles of Management [J]. *Modern Enterprise*,2021(02):104-105.
- [3]Gao Pan. Teaching Mode Combining Theory with Practice: The Exploration of teaching in Production operation management [J]. *Education and Teaching Forum*,2018(11):134-135.
- [4] Chen Zhang, Yuanqi Wang, Yifan Luo, Jianwen Xiong. Research and practice of constructing virtual simulation "golden course" by integrating science, education, industry and education[J]. *Laboratory Research and Exploration*,2021,40(05):243-247+276.
- [5] Zhiqiong Wang, Guangwu Liu, Jintong Liu, Jiming Liu, Ying Huang, Shuhong Zhou. Construction of multidimensional collaborative virtual simulation innovative practice teaching system[J]. *Laboratory Research and Exploration*, 2021,40(05):197-201.
- [6] Yong Lu. Exploration of online teaching practice of college Civics class based on virtual simulation technology[J]. *China University Teaching*,2021(04):79-84.