International Journal of Multimedia and Ubiquitous Engineering
Vol.10, No.10 (2015), pp.187-196
http://dx.doi.org/10.14257/ijmue.2015.10.10.20

The Personnel Model of Vocal Music Training Based on ERP Simulating Experience Platform

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Abstract

This paper has clear understanding on features of experiencing laboratories which is based on ERP on account of the ERP simulation with sand table experiment. Then we established strategic position to applied personnel majoring in vocal music training on account of ERP, so as to establish the practicing platform of experiments, practical training as well as practice for students majoring in vocal music training, to improve the application ability of students. We put forward practicing discovery on model of applied personnel majoring in vocal music training.

Keywords: *ERP Simulation; Vocal music training; Practical training; Platform*

1. Introduction

Computer Assisted Instruction (CAI) is an assistant teaching and training method, which has been widely used in various teaching and training activities with the rapid development of computer and network technology since the early 1990s. By means of using a variety of software processing tools, such as PPT, FLASH, 3DMAX, PREMIERE, the teaching and training contents are optimized in sound, image, graphics, video and other information processing, then the courseware's characteristics of richness, novelty, interestingness, Figurativeness and organization are eventually obtained. Application of computer assisted vocal music training system is very extensive, which has played an important role in various industries and various areas, specifically in the following aspects: (1) Office: Automatic control system can automatically start and run, which can ensure the whole process of work conducted in the automatic mode. At the same time, it can automatically repeat records of operation, which can be used in products and software presentation. It can completely replace the human operation, assisting the allocation of human resources. Therefore, the computer program can easily improve the efficiency of the office automation in many aspects. (2) Application of family: as people's living standards and cultural accomplishment enhanced, people have paid more and more attention to the quality of life to face the fast pace of life, the computer assisted vocal music control system is applied more and more widely in family life. Moreover, the computer automatic control system can broadcast any multimedia entertainment, which can connect with an environmental sensor, automatic operation control system. This paper makes brief statements on the design and application of computer assisted vocal music training system Based on ERP Simulating Experience Platform.

2. The Establishment of ERP Experiment Training Platform

The expert control system is a hot topic in the study of assisted vocal music control, there are a great deal of systems both in domestic and foreign development. In fact, multilevel expert control system is a hierarchical structure, which can be divided into two stages, namely the global decision level and the local decision level. The global decision

ISSN: 1975-0080 IJMUE

is a man- machine system, which is mainly to solve the decision problem of global, long-term. While the local decision is also a man--machine system, but it is decided by local decision makers and optimal coordinator, which is mainly to solve the daily, local channel and short-term problems. As far as assisted vocal music computer control system is concerned, a lot of universities and units such as: Tsinghua University, Zhejiang University, Chongqing University, Central South University, Academy of Sciences Institute of Automation, Shenyang Institute of Automation, Institute of Computer Institute, and Chengdu Institute of Computer Application, *etc*. have many researches on it. So the units have conducted a lot of researching work, which has made some theoretical and practical achievements in scientific research, such as catalytic cracking unit (FCCU) computer control system. The system is mastered by Professor Lv Yongzai, Zhejiang University, who introduced a method of artificial intelligence to set up a non-traditional training mode as the main structure of the system, as is shown in Figure 1.

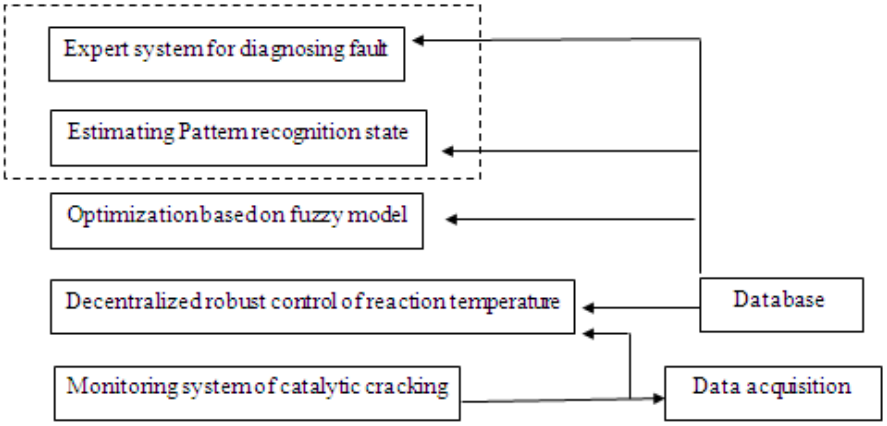

Figure 1.The Main Structure of the Training System

ERP experiment training is an important part of vocal music training experiment training. ERP is the short name of Music laboratory Resource Planning. The function of ERP practical training includes music laboratory strategy, organizing, planning, leading and controlling. Analyzing from experimental contents, it includes, production operation management, supply chain management, human resources management, and products management. *etc*. ERP practical training can make students understand the environment as well as contents of music laboratory operating comprehensively and truly, so it plays an important role in improving students' practical applied ability. The system of ERP practical training platform is shown in Figure 2.

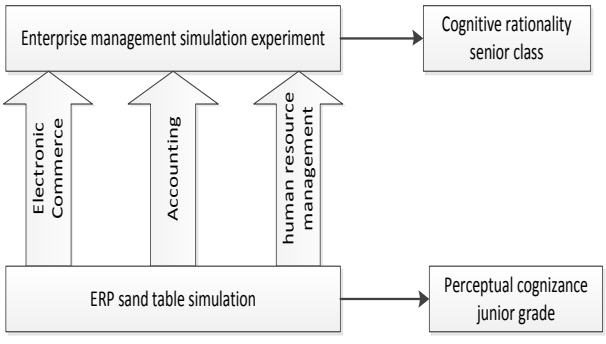

Figure 2. ERP Simulation with Sand Table Training

ERP simulation with sand table training is an experiential dynamic training method which is burgeoning in our country (T. Chen, 2014). It truly shows professional knowledge involving music laboratory structure and management in sand table, which can be seen and touched by students, thus creates a simulated emulational experiment environment for learning and experiencing the groundbreaking management knowledge. It not only makes students understanding the essence of operational management activities, but also strengthens their music laboratory consciousness, thus makes every student directly taking part in simulated music laboratory operation, experiencing complex as well as abstract operational management theory. ERP simulation with sand table is an experimental platform pointing at advanced modern music laboratories' operation and management skill, as well as the role that they design (Wang, Q.*et al*., 2006).

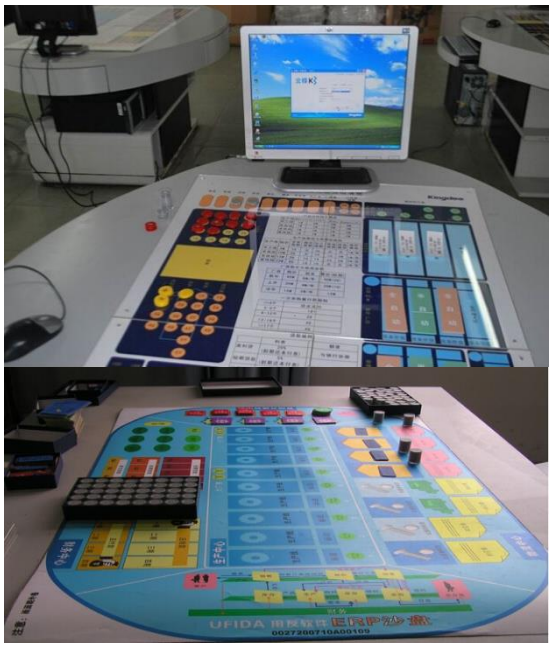

Figure 3. Sand Simulation

The training aids of ERP simulation with sand table mainly include six sand table disks, representing six music laboratories that is competitive with each other. As shown in Figure 3.According to function departments of manufacturing music laboratories, simulation with sand table has divided into the function center, including marketing and programming center, producing center, logistics center and financing center (Xu G.Q., 2007). Each function center covers all the key links of music laboratory function, such as strategy programming, products' research and development, producing and organizing, material purchasing, equipment investing and reforming, finance checking and management. *etc.* At the same time, these parts are the designing main line, and abstractly consider the inner and outer environment of music laboratory operation as a series of rules. Trainee will form six music laboratories that are competitive with each other, simulating the five to six year-operation of music laboratories, in which the experimental training links are students involving-sand table carrier-simulating operation- opposed drill-instructor evaluation- students sentiment. *etc.* The designing idea that combining groundbreaking theory with practice, as well as integrating role playing and position experiencing makes trainee understanding scientific management regulation, team work spirit, and improving their management ability comprehensively in activities such as analyzing market, making strategy, marketing planning, organizing producing, and

finance management. *etc*. At the same time, it is a practical experience for the management process of music laboratory's resources (Zhang, J. X., 2008).

ERP simulation with sand table training is popular among students majoring in vocal music training and other specialties. Students master more theoretical knowledge which is taught in class through ERP experiment, which greatly improves students' perceptual cognizance to management theory. However, at present we use industrial sand table to simulate ERP operating environment, which makes the simulation of music laboratory operating environment has some limitations, so we need to upgrade and improve the present ERP experiment, making rational knowledge and perceptual cognizance unified. As for students majoring in vocal music training and other specialties, "management" is a totally strange field in which students have neither practical experience, nor the speculative knowledge (Pritchard D, 2013). On that occasion, we need to start from offering a perceptual cognitive environment so as to educate these students with management knowledge. In the eyes of educational psychology, the process that individual has cognition on stuff and knowledge firstly comes from perceptual cognizance, and then goes to stage of rational knowledge. ERP simulation with sand table obeys that rational. As shown in Figure 4.Through simple simulation to real environment, ERP simulation with sand table will produce an operating process of a subjunctive music laboratory, then it will transit from subjunctive operation to real operation. This process is not only the process of cognition management, learning management knowledge and improving management skill for students, but also the development process for students' thinking logicality.

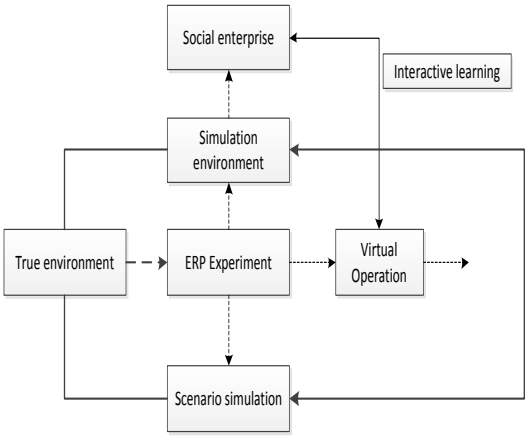

Figure 4. The Experimental Training System Based on ERP

Junior students can understand the conception of management, contents that management includes, what is music laboratory and works that an music laboratory needs to do through the study of ERP simulation with sand table experiment. Though this field is totally strange to junior students, they acquire a very significant thing through ERP simulation with sand table experiment, it is the curiosity, which has greatly aroused students' interest of management and music laboratory, and they will have strong will to learn in order to fulfill the curiosity (Yin, P.F., 2010). Thus it requires teachers to guide this kind of curiosity to learning knowledge. In a word, ERP simulation with sand table experiment in junior students offers stimulant environment to cognize music laboratory management and arouses students' interest.

However, with the increase of students' knowledge and ability, ERP simulation with sand table cannot fulfill the requirements of senior students to improve their practical ability, which requires us to offer them a management environment that is more realistic, more closer to music laboratories' realistic situation, so we can equipment students with ability and skill to enter into the stage of employment and entrepreneurship. Emulational

experiment of music laboratory management we launch in this stage can make students improve their knowledge and skill in all aspects through comprehensive training, which can meet the objective law, namely their cognitive development, knowledge accumulation, and practical requirements in college. Music laboratory management emulational experiment truly simulates the process of an music laboratory from establishment to products marketing, including music laboratory founding, business registration, tax registration, organization construction, personnel recruitment, music laboratory operation, products making, market investigation, client service, marketing and so on(Meng, L.C., 2013). The simulation of a music laboratory's real activity can make students understanding the process of music laboratory's management activity vividly and comprehensively, thus they can apply the knowledge they learned to management practice and greatly improve students' ability of management practice.

3. The Principles of Constructing Expert Vocal Music Training System

With a further recognition on the experimental features of economic management, we have a deep thinking about the principles of constructing vocal music training system, and summarize the following principles:

Systemic Principle

Due to involving many disciplines and covering many majors, the construction of vocal music informatics vocal music training system is a complex systemic project. In order to build a complete and reasonable system, we must follow the system theory, especially the points of view about the integrity, the interrelation, and the dynamic evolution. In addition to the orderly planning and integration among the knowledge in the vocal music training, the vocal music training must be combined with other practice teachings, such as theory teaching, teachers' scientific researches, and advantages of school disciplines and the development of local economy.

Modular Principle

The vocal music training of vocal music informatics should include the teachings of computer software and hardware technique, database technology, data acquisition technology, information retrieval, data mining technology, artificial intelligence technology, simulation technology and other disciplines and relevant professional experiment teachings. According to the objective differences among contents of various disciplines and majors and the unified planning based on the disciplines, breaking traditional methods based on courses, the system divides the integrity into modules scientifically and reasonably, therefore the students of different disciplines and different majors can choose related modules to learn [3]. In the process of dividing the modules, we should abide by the principles of high aggregation and low coupling of module contents to fully embody the differences and relations among disciplines.

Hierarchy Principle

In addition to making a lateral distinction, according to the different teaching aims and the deep analysis of vocal music training, we should map out different vertical hierarchies scientifically and reasonably, and build a hierarchical and gradual vocal music training system to meet different learning needs of students in different grades, different periods and different purposes.

Profitability Principle

No matter how to divide horizontally or vertically, the standard to check the vocal music training system is reasonable is benefit. There are three aspects of benefit: first, it is the technical benefit to meet the talent training target; second, it is the economic benefit under the software and hardware environment; the last one is the social benefit that can demonstrate, radiate and lead the development [4]. If the three aspects are noticed, the integration and completion of constructing vocal music informatics vocal music training system can be guaranteed.

According to the personnel training target and features of students majoring in vocal music training, in order to arouse their learning enthusiasm, improve students' training quality and strengthen their core-competitiveness, we need to pay attention to students' characters in training process and design personnel training scheme that suits their characters except for strengthening theoretical training. Compared to class training, learning in practice can better reflect students' characters differences, better arouse their innovation awareness, and better improve their ability. Thus, we put more proportion of practical and experimental training in personnel training scheme of vocal music training specialty, at the same time, strengthen their practical operation ability through learning of practical and experimental courses.

4. Features of Students Majoring in Vocal Music Training

Compared with students majoring in science and engineering, students majoring in vocal music training have obvious features, which are shown in the following aspects.

Firstly, students majoring in vocal music training have wide interests and active thoughts. Hence, abstract formula, theoretical derivation and model establishment in training activity cannot arouse their learning enthusiasm and interest. What's more, these theories and models don't have direct impact on later job of students majoring in business administration. Thus, it makes students feel "what I learned is not what I am using, and what I am using is not what I learned," which bruises students' learning enthusiasm.

Secondly, students majoring in vocal music training usually start from lower management and service work in future job, and they associate with "people" more, while students majoring in science and engineering associate with "affair" more in their future job. To adapt to the working environment and objective, students are required to have better interpersonal skill. Thus, in the process of training students, we should put emphasis on training of interpersonal interaction and making students better fit for the needs of society and music laboratories.

Thirdly, the curriculum design of vocal music training puts more emphasis on training of personnel on all aspects, not personnel on certain specialty, which fulfills the requirement of management practice. However, it requires school to offer many courses for students during the academic year, which makes most courses fail to go deep. Generally speaking, vocal music training exchanges the depth of professional knowledge for the width of knowledge, which meets the requirements of student's work in future. However, the disadvantage of this course design is that it make students feel they have learned everything, but nothing deep, which makes this major become "Jack of all trades".

Fourthly, cultivation of students majoring in vocal music training emphasizes on combination of management thinking practice with professional knowledge and skill applying ability. However, students' thinking method and knowledge applying are recessive knowledge which cannot be acquired by teacher's procedural training, so it needs students to improve their ability of knowledge integration and interpersonal interaction through some basic item trainings.

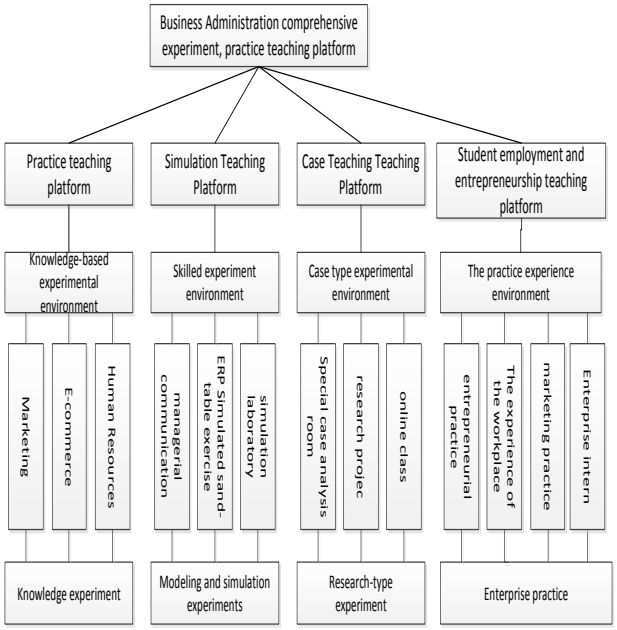

Figure 5. Practice Training Platform

Knowledge-oriented experiment, skill-oriented experiment, case-oriented experiment and practice-oriented experiment are four parts of the establishment of training system of practice majoring in vocal music training, as shown in Figure 5. The establishment of practical and experimental training platform is the combination of training as well as learning, practicing as well as using, and modeling and imitating. Through the establishment of practical and experimental training platform, we combine training, imitation with simulation, thus achieve the target of students' training majoring in vocal music training through programming and integrating systematically. And also, we can provide students with such environment that students can freely choose to verify, apply, research scientifically, and start a business. In the training system of practice and experiment majoring in vocal music training, we highlight the platform establishment of simulation and music laboratory's practice, especially the founding of music laboratory simulate labs in simulate experimental platform. In music laboratory practicing platform we put emphasis on the training of practice of starting a business, practice of employment and practice of marketing. Usually, music laboratory practice requires students to find internship units on their own and undertake some management as well as work task to carry on internship, then acquire the opportunity of music laboratory practice. However, there are many difficulties in detailed implementation process. For example, it is difficult for students to find an internship unit therefore they cannot meet the requirements of internship. In order to solve this problem, we project emulational music laboratory lab in the system of practical training, which is a new experimental project we put forward on the basis of emulational experiment. The fit between emulational experiment and operation environment of music laboratories is very good, which provides a vivid situation for student as if they were in real music laboratory, so it can similarly replace the need for students to start music laboratory internship.

Emulational experiment not only can finish internship process as well as working mission of a real music laboratory, but also can provide more music laboratory management problems which are set up by teachers for students to think over and solve. Also, teachers can make different problems that music laboratories faced concentrating on emulational experiment of a music laboratory for students to learn and solve. This is an advantage that a single music laboratory doesn't have and also a difference from a real music laboratory internship. At the same time, there is no time and place limitation for

music laboratory emulational experiment, students can experience on their own during a holiday and weekends, thus improve the efficiency of emulational experiment and solve the problem that music laboratory internship units are not inadequate. Music laboratory emulational experiment is developed and took part in by students and teachers, so the process which it attracts students to participate in the establishment of emulational experiment is also the process that students' quality is trained and developed. Through students' participation of this project, their learning interest and ability of understanding as well as application of knowledge are also improved, thus solve the problem that training and learning are not in the same step in a sense. The procedure of music laboratory emulational experiment is shown in Figure 6.

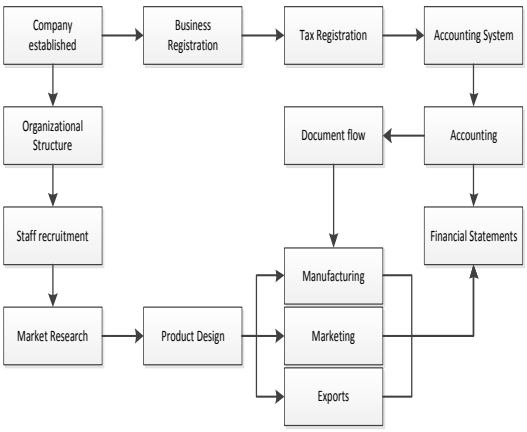

Figure 6. The Procedure of Music Laboratory Emulational Experiment

The Advantage of Entrepreneurial Personnel Training Model Based on ERP Emulational Experiment Platform

Under the impacts of globalization tidal wave, information technology has totally integrated into the current commercial environment. Popularizing ERP management concept and fostering inter-disciplinary innovative talent is an important strategic mission and responsibility faced by music laboratories, institutions of higher learning and the society. We should strengthen the establishment of entrepreneurial practice system, create strong atmosphere and cultural environment for the growing of entrepreneurial talent and establish a wholesome training system for entrepreneurial talent. Strengthening the entrepreneurial practice training has particularly great impact on deepening reform of experiment training. As the important part of practical training, experiment training researches systematically and explores practically the issue that in what way the experiment training functions on aspects of knowledge establishment, developing theoretical training, improving students' entrepreneurial ability and quality. We carry forward experiment training reform of vocal music training specialty and improve training quality of entrepreneurial talent using ERP emulational experiencing training as a pawn.

Launching ERP emulational experiencing experiment training is an effective way to foster entrepreneurial talent. Students can acquire professional education and skill training through ERP integrative experiment training, at the same time, they can get systematical understanding of professional knowledge of vocal music training and professional basic theory, thus found a real emulational platform of fostering inter-disciplinary innovative talent on the basis of modern educational technology.

The launching of ERP emulational experiencing experiment training breaks through time and space limitation of practical training of vocal music training specialty. ERP emulational practical training platform is the extension of computer emulational technology on higher education, which makes practical training activity of vocal music

training specialty breaking through time and space limitation and creating condition to shake off present difficulty for the practice of vocal music training specialty, at the same time, founding important support and offering proper platform.

The launching of ERP emulational experiencing experiment training shortens the fostering period of vocal music training talent. ERP experimental training not only can establish rational knowledge structure and theoretical system of vocal music training specialty undergraduates, but also can greatly improve practical ability of them. ERP emulational experiment training is definitely a shortcut of fostering professional talent on vocal music training efficiently.

5. Conclusion

In a short, the establishment of the experiencing experiment training system of vocal music training specialty can combine skill, knowledge and ability together, arouse students' interest and respect students' characters and creation. We can greatly improve the training quality of students majoring in vocal music training, further fulfill the needs of society and music laboratory.

Acknowledgements

This research is supported by the National Natural Science Foundation of China (U1204609); The Education Department of Henan Province Science and Technology Key Project (14A510011); The Youth Science Foundation of Henan Normal University (2012QK21).

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