Construction of Practical Teaching Situation of Financial Robot Course

Dejun Zou

School of Literature, Jinan University, Guangzhou, China

Keywords: Financial robot, Practical teaching, Economic and technical data, School enterprise cooperation

Abstract: At present, the key problem in the teaching of financial robot course is how to construct an appropriate practical teaching situation. There are similarities and obvious differences between financial robot practice teaching scenario and industrial application scenario. The practical teaching situation of financial robot should be constructed by colleges and enterprises together. The key is to introduce the economic and technological data with real vitality into practice teaching, to achieve the purpose of both practical teaching and industrial application functions.

1. Introduction

Since Deloitte, one of the four largest accounting firms in the world, has launched financial robots. Not only many enterprises have actively developed and applied financial robots, but also some enterprises and universities have noticed that this has an important impact on the education and teaching of financial majors. Some enterprises and universities have carried out educational research and application work related to financial robot. Even, some colleges and universities have set up financial robot courses alone. Therefore, it is necessary to study the key problems of financial robot teaching.

At present, from the perspective of education and teaching, financial robot course has two distinct characteristics: first, it is a practical course; second, it is a course related to industry technology, which has been applied in some enterprises[1], but is not yet mature. Financial robot course belongs to practical course. The practice course needs to be carried out in the appropriate practical teaching situation. If the school wants the teaching activities of practical courses to achieve better teaching effect, it must carry out the teaching activities of such courses in a certain practical environment. Without this practical environment, students are unlikely to master the professional skills required by the teaching objectives of practical courses. Appropriate practice teaching situation is of great significance to the teaching quality of financial robot course[2]. At present, the financial robot has been applied in large accounting firms such as Deloitte, country garden company and other large enterprises, which has greatly saved manpower and improved work efficiency. However, the technology of financial robot needs to be further mature, and has not yet formed a widely recognized technical standard [3]. For example, the financial robot developed by UFIDA and other enterprises relying on ERP system is completely different from the financial robot application tools developed by is-Search and other companies, and different from the financial robot developed by Deloitte and other firms. These conditions show that there are many industrial application cases in the field of financial robot, but the widely recognized technical standards have not yet been formed [4].

These two features are in line with the future technology oriented financial robotics course content. Of course, these two characteristics bring the key problems to the teaching of financial robot course: how to construct a practical teaching situation suitable for the teaching needs of financial robot course? If the technology involved in the practical course is very mature, especially with widely recognized technical standards, then the practical course can rely on the mature technology application environment and technical standards to construct the practice teaching scenario. Such a practical teaching scenario should be close to the industrial application scenario. If the technology involved in the practice course is not mature, and there is no widely recognized

technical standard, then the practice course can hardly rely on the technical standards to construct the practice teaching scenario, and it is unlikely to rely on the mature technology application environment to construct the practice teaching scenario close to the industrial application scenario. For these practice courses without mature technology and technical standards, the practice teaching situation cannot follow the "take doctrine", learn from the existing equipment from other fields, but need to research and develop the equipment and materials needed for practical teaching [5]. In order to express the two characteristics of financial robot course and the problem of constructing practical teaching situation, the relationship between them is described in Figure 1.

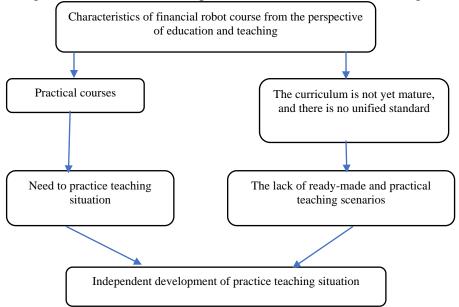


Fig.1 Characteristics of Financial Robot Course and Main Problems in Teaching

According to the situation that the practice teaching content of financial robot course is not mature and has no widely recognized standard technology, only by constructing appropriate practical teaching situation of financial robot course can colleges and universities keep up with the development of financial robot industry technology and industrial application scene in the process of constructing and applying practical teaching scenario, and gradually develop in the process of continuous practice teaching To master the teaching method of this new technology, to train the team of teachers, to accumulate teaching materials, so as to improve the teaching quality [6]. The core problem of financial robot course teaching in Colleges and universities is: how to construct an appropriate practical teaching situation of financial robot course?

2. Similarities and Differences between Practical Teaching Scenarios and Industrial Application Scenarios of Financial Robot Course

It is necessary to pay attention to the similarities and differences between the practical teaching scenario and the industrial application scenario of financial robot course. There are two similarities between the practical teaching scenario and the industrial application scenario of financial robot course. First, both practical teaching scenarios and industrial application scenarios involve human activities, and both need to record and evaluate people's situation comprehensively and systematically, so as to determine people's work performance or academic performance. Second, both practical teaching and industrial application scenarios involve economic and technological equipment, data and their application, and both need to analyses the process of economic and technological activities. The methods of recording, analyzing and evaluating people and their economic and technological activities are the same.

The differences between them are mainly shown in the following aspects. First, environmental factors and complexity are different. The industrial application scenario takes the whole society as the

background. Tens of millions of factors in the whole society can affect the industrial application scenarios, and the situation is very complex. The factors affecting the practical teaching situation of the course are relatively few and the situation is relatively simple. If the practical teaching situation of the course is simulated social environment, then the simulated social environment contains a lot less factors and variables. Even if the course is based on the real society, the teaching time of the course is limited. It just intercepts a certain time segment of the real society to construct the teaching environment, and the real social factors and variables involved are also reduced a lot with the time. Second, the results of environmental application are different. The industrial application scenario is based on the real economic and social background. Financial robot technology is applied to real economic and business activities, which produces corresponding economic benefits and economic responsibilities, and affects the work performance and economic income of the staff. The practical teaching situation of the course may take the real economic and social situation as the background, and may also take the simulated real economic and social situation as the background. If the practical teaching situation of the course is based on the real economic and social background, and the students' practical teaching activities are integrated into the work of the enterprise industry, it will also produce economic benefits and economic responsibilities, and affect the students' practical teaching achievements, work performance and economic income as staff. If the practical teaching of the course is based on the simulation of the real economic and social conditions, then the practical teaching activities will not actually affect the real economic business, and students will not bear the corresponding real economic interests and economic responsibilities. Third, the goal of environmental application is different. Industrial application scenarios take economic and technological operation as the main goal, and people's work is subject to the technical and economic development of social organizations. The main goal of the practical teaching situation of financial robot course is to master the knowledge and ability of economy and technology. The equipment, materials and activities of economy and technology in the practical teaching situation need to obey the development of human beings. The three differences between the practical teaching scenario and the industrial application scenario of financial robot course show that colleges and enterprises can play their respective advantages in constructing the practical teaching scenario of the course, which not only conforms to the law of education and teaching, but also conforms to the development trend of industrial technology. Table 1 describes the differences between practical teaching scenarios and industrial application scenarios of financial robotics course and without considering the data volume. Taking into consideration this ratio, green IT technologies have important benefits in terms of:

Serial	Name / environment	Practice teaching situation	Industrial application scenarios
number	and scene		
1	Factors and complexity	Few factors and simple	many factors and complicated relations
		relationship	
2	result	Does not affect or less affect the	Impact on real economic interests
		real economic interests	-
3	target	Training talents	To gain economic benefits and promote
	_	_	technological development

Table 1 Differences between Practical Teaching Scenario and Industrial Application Scenario of Financial Robot Course

3. The Way to Construct Practical Teaching Situation of Financial Robot Course

3.1 The Practical Teaching Situation of Financial Robot Course Should Be Constructed by School Enterprise Cooperation At Present

Colleges and universities need to cooperate with enterprises and industry organizations to research and develop the practical teaching situation of the course. Financial robotics course must be in line with the latest development and application of this technology in the industry. This means that colleges and universities cannot regard financial robot course as a pure academic research course. Without the industry, the teaching of financial robot course is likely to be divorced from the needs of industrial practice. If the academic research in the field of financial robotics in Colleges and universities is ahead of the development of industrial technology, then these academic research results need to be applied to the industrial field through industrial enterprises, and then test whether the research direction of colleges and universities in this field meets the market demand. In this situation, colleges and universities need to promote and apply the research results in the field of financial robot course constructed by universities combined with industry enterprises is closer to the industrial practice situation, and it is more conducive for students to master the relevant technology of the course, and is more conducive to the application and promotion of new technology.

If the academic research in the field of financial robotics lags the progress of industrial technology, then colleges and universities need to closely combine with enterprises and industry organizations to construct the practical teaching situation of the course. In this case, colleges and universities can obtain the latest technology related equipment and materials through the construction of financial robot course practice teaching scenarios by combining industry and enterprises. On the one hand, it can improve the degree of integration of industrial technology and teaching quality of financial robot course, on the other hand, it can also improve the academic research level of the school in this field. Overall, it is necessary for colleges and universities to jointly develop equipment and materials related to the practical teaching of financial robot course, and then construct the practical teaching situation of the course.

3.2 Economic Data Sources for Constructing Practical Teaching Scenarios of Financial Robot Course

There are three sources of economic data for constructing practical teaching scenarios of financial robot course. First, economic, and technological data with realistic vitality. Such data are entirely derived from the socio-economic environment without any modification. These data must be used in the social and economic environment to produce realistic economic effects. Without the social and economic environment, these economic and technological data will lose their practical vitality. From the perspective of practical teaching of financial robot course, the advantage of real economic and technical data is that it can completely bring practical teaching into real social and economic activities. For teachers and students who participate in practical teaching activities, they can not only evaluate the teaching quality and talent training effect, but also produce practical economic and technological effects. From the perspective of practical teaching of financial robot course, the disadvantage of real economic and technical data is that it is difficult for college teachers and students to obtain the real economic and technical data, and even more difficult to integrate into the relevant economic business of these economic and technical data. If the teachers and students do not enjoy the economic and practical business activities, they will not enjoy the economic and technical activities, and they will not be able to enjoy the economic and practical business activities. Second, desensitization of real economic data. This kind of economic and technical data is formed on the basis of modifying and adjusting the real social and economic activity data. After modification and adjustment, these data are divorced from the reality of social economy and lose the vitality of reality. The advantage of this kind of data lies in that colleges and universities can transform the real economic and technological data according to the educational teaching theory and curriculum practice teaching conditions such as the cognitive law of human beings, to make it more suitable for the practical teaching of curriculum. Third, economic and technical data of design. This kind of economic and technical data is the data formed by universities and research institutions according to the research and development of practical teaching of financial robot course. These data mainly consider the needs of students to master the relevant technology during practical teaching, and design economic and technical data around these technology teaching. The advantage of this kind of data is that colleges and universities are easy to obtain and observe the students' learning situation. Of course, these data are likely to be far away from real economic and technological activities. This has led to

students in the practice of teaching process to obtain good results, but to the real society, it is not necessarily able to achieve good results. Teachers and students need to pay attention to the fact that the economic and technical data of the design may be quite different from the actual situation.

4. Summary

From the point of view that the goal of education is to cultivate talents suitable for social needs, the most suitable economic data should be economic and technical data with realistic vitality, followed by desensitized economic and technical data, and then the economic and technical data designed. However, from the cost of obtaining and using data, the lowest cost should be the economic and technical data designed, followed by desensitized economic and technological data, and the highest cost is the economic and technological data with real vitality. In addition, from the point of view of the degree of cooperation between enterprises and universities to obtain data, the highest degree of cooperation between colleges and enterprises is the economic and technological data with realistic vitality, and schools must continuously obtain these data from enterprises; secondly, desensitized economic and technological data, schools only need to obtain some economic and technological data from enterprises intermittently; finally, the economic and technological data need to be obtained from the enterprise.

5. Acknowledgement

This research was financially supported by the Jinan University.

References

[1] Nourbakhsh, Illah R., et al. 'The Robotic Autonomy Mobile Robotics Course: Robot Design, Curriculum Design and Educational Assessment.' Autonomous Robots 18.1(2005):103-127.

[2] Beetz, Michael, and H. Grosskreutz. 'Probabilistic Hybrid Action Models for Predicting Concurrent Percept-driven Robot Behavior.' Journal of Artificial Intelligence Research 24.1(2005):799-849.

[3] Crain, Susan J., and K. P. Ragan. 'Designing a financial literacy course for a liberal arts curriculum.' International Journal of Consumer Studies 36.5(2012):515-522.

[4] Bell, Malcolm. 'What Turns Distance Learning into Effective Learning?' Financial Management (2011).

[5] Felix, De Brito Neto, Jose , M. J. Smith , and D. Pedersen . 'E - learning in multicultural environments: An analysis of online flight attendant training.' British Journal of Educational Technology 45.6(2014):1060–1068.

[6] Gianluca Colò, et al. 'Self-consistent RPA calculations with Skyrme-type interactions: The skyrme_rpa program.' Computer Physics Communications 184.1(2013):142-161.