Systematic Design Practice of Fragmented Knowledge Points in Entrepreneurship Curricula

Li Xiao[1], He Sha[1], Liu Guanren[2], Liu Shunqiang[2], Liu Xianming[*]

Corresponding author. A/Prof. Liu Xianming, Hubei Polytechnic University, Huangshi, Hubei 435000, China, email: 626203952@qq.com
[1]*MPhil, Wuhan University of Science and Technology, Wuhan, Hubei 430000, China*
[2]*School of Economic and Management, Hubei Polytechnic University, Huangshi, Hubei 435000, China*

ABSTRACT
With the arrival of the Internet information age, massive information, convenient mobile terminals, and attractive "fast-food culture" become the engines for fragmented learning. The demands for high-quality teaching guidance in entrepreneurship curriculum have become urgent with the increasing emphasis on innovation and entrepreneurship (I&E) education. This paper will discuss the major difficulties in implementing entrepreneurship courses and fragmented learning through literature analysis, field research and practical application. Furthermore, the causes of the difficulties will be analyzed and corresponding solutions will be put forward as well. Based on the IEA curriculum system put forward by Liu Xianming, teacher of Hubei Polytechnic University, a set of universally accepted fair and trustworthy standards for entrepreneurship education and incubation is established so as to provide systematic learning of fragmented knowledge points of entrepreneurship courses with application value.
Key words: fragmentation, knowledge points, systematization, entrepreneurship theory, entrepreneurship education

1. PRACTICAL DIFFICULTIES OF ENTREPRENEURSHIP CURRICULUM/ EDUCATION

1.1. Difficulty in opening entrepreneurship education

In the era of mass entrepreneurship and innovation, an increasing demand for high-quality entrepreneurship courses and excellent entrepreneurship teachers has been emerging. However, the establishment of an entrepreneurship curriculum system cannot be separated from practice，which requires entrepreneurship educators to work hard in entrepreneurship for a long time. The entrepreneurship curriculum system can only be made through continuous practice and exploration cannot be achieved overnight. The ideas and directions vary from person to person with regard to the entrepreneurship system due to the various fields explored by each entrepreneurship educator. On top of that, it is difficult to promote the entrepreneurship system as a result of their limited scope of application. The increasing standard of teachers of the field, the scarcity of excellent entrepreneurship courses and mentors' going against the rapid development of entrepreneurship education in China make it less likely for ordinary schools to open excellent entrepreneurship courses.

1.2. Complexity of entrepreneurship knowledge points

Currently, intense debates are prevalent in entrepreneurship education. The teachers who have been working in the field for many years have continued to explore and sum up some distinctive theoretical systems of entrepreneurship education in their fields. However, the different practice environment of each teacher results in the diversified theories of entrepreneurship education system and the limited application. The confused fragments, verbose and obscure contents of numerous entrepreneurial knowledge systems make it hard for entrepreneurs to transform and absorb, which is not conducive to the dissemination of entrepreneurial knowledge at the same time.

1.3. Fragmentation of students' time and low participation in entrepreneurship courses

Limited and fragmented learning time occupied by routine tasks of entrepreneurs makes it impossible for them to conduct systematic learning that requires a lot of complete time. Meanwhile, entrepreneurs also need to deal with all kinds of unexpected events at any instant, which makes entrepreneurs fail to choose systematic learning approaches to improve themselves. In the classroom, teachers only teach scattered

entrepreneurship theoretical knowledge points. By contrast, there is no way to deal with the problems encountered by students in their entrepreneurship practice outside of class. Entrepreneurship courses therefore are labeled as "chicken ribs" (things of little value or interest) by students, and naturally, their interests in this course drop sharply, which makes it hard to achieve the course objectives.

2. ANALYSIS OF DIFFICULTIES IN THE IMPLEMENTATION OF ENTREPRENEURSHIP COURSES

There are four main reasons to explain the difficulty in the implementation of entrepreneurship courses, including high requirements for the courses, complex knowledge points, great challenges brought by technology iteration and social development, as well as diverse personalized needs. The lack of teachers with professional technology and entrepreneurial knowledge, and the scarcity of authoritative and available innovation and entrepreneurship courses are the fundamental reasons.

2.1. High requirements for opening class

The course not only requires the mentor to have a profound and highly-professional cognition in entrepreneurship, but also the tutor to have a deep understanding of the entrepreneurial rules, and to be able to combine considerable entrepreneurial education knowledge points into the course system so as to form the main orientation of the course. Furthermore, entrepreneurship courses require mentors to have rich knowledge reserve, including knowledge related to curriculum, knowledge related to cases and tools. The current education mechanism has achieved certain informatization, though, it still cannot meet the needs of entrepreneurship curriculum and is difficult to integrate many fragmented knowledge points into a specific chapter. And there are internal relations among the knowledge points of entrepreneurship courses. Without finding the internal connection among knowledge points, you cannot form the whole picture of entrepreneurship and apply these points into the practical use.

2.2. More knowledge needed to learn

Entrepreneurship curriculum, as a huge system can meet the needs of I&E in different kinds of areas. Covering the whole process of entrepreneurial projects from the creation of ideas, team and project building, feasibility and necessity analysis to the founding of the company. The numerous knowledge points form a complicated knowledge system. Many tools and preparations for the curriculum are needed naturally, such as the design of lesson duration, teaching methods mechanism, case explanation, learning supervision and performance assessment mechanism as well as chapter tools. Entrepreneurship course is closely following the pace of the

times and technological changes.

2.3. Diversity in personalized needs

Fragmented learning has been irresistible in the future. How to learn what you want in a limited time is the reflection of today's personalized needs. The fragmentation of entrepreneurship courses results from different levels and needs and fragmented learning time of students. How to grasp the objective law of entrepreneurship to form the system of entrepreneurship education, and then break the whole system into fragmented but internally related knowledge points has become a critical issue to meet the individual needs of students.

3. THE APPLICATION OF FRAGMENTED KNOWLEDGE POINTS IN IEA COURSE

3.1. Framework of IEA curriculum system

The core of the framework of IEA (Innovative Entrepreneurship Active) curriculum is the educational engineering certification logic, which is a output-oriented, scenario-based learning project with the qualified ability index being the graduation standard. The cases are integrated into the model and knowledge points which are explained by card and micro video. By classifying the knowledge points and the ability needed in entrepreneurship, modularizing and selectively combining the fragmented knowledge points to form a whole system, it is aimed at achieving a short learning cycle, high learning quality, pragmatic entrepreneurship and standard procedure.

3.1.1. Certification logic of educational engineering -- oriented by output

The design of IEA curriculum system draws lessons from the goal-oriented logic in educational engineering certification, and introduces new thinking in engineering into the professional introduction. That is, confirm the training objectives of the system and establish the training program known as the teaching plan first, and then assess whether the teaching achievements meet teaching objectives item by item. If not, readjust them to achieve the teaching objectives. The traditional education concept should be subverted to investigate students' capability of knowledge use based on their creating value from knowledge instead of taking teachers' teaching as the evaluation criterion, so as to prevent students from being an armchair strategist without actual operation.

3.1.2. Explanation of knowledge point by card and micro video

The card for explaining knowledge points contains theories and its words explanations, and links of thinking and so on. The card-based teaching mode allows students to use fragmented time for learning, which can effectively improve the frequency of learning, so that knowledge learning can be changed from short-term memory to lifelong memory. The use of micro video which can be recorded in advance in the form of QR code in a card when explaining knowledge points can be convenient for students to check at any time for another study.
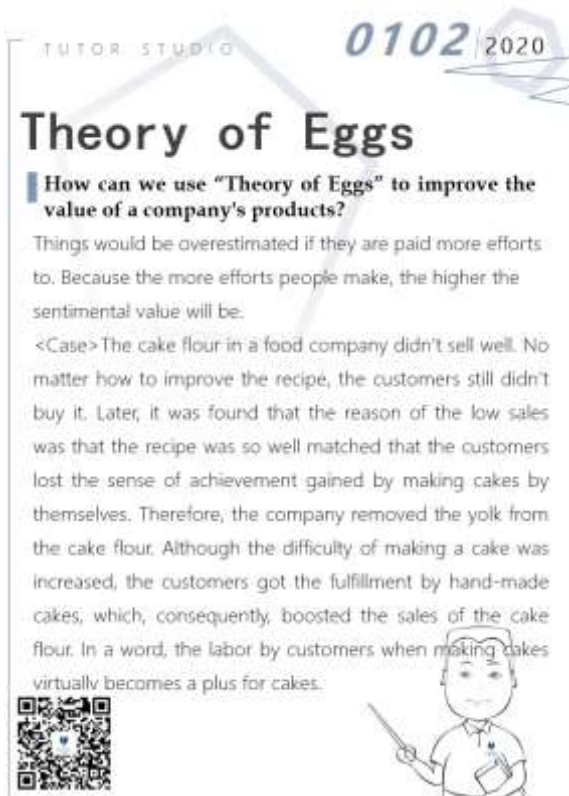
In the IEA curriculum system, knowledge cards and micro videos are introduced to enable learners to learn knowledge points during leisure time. Although the knowledge card is short, it is rich and intuitive in content. A combination of the sound, color, painting of the micro video can satisfy people's sensory experience, so that learners can also quickly finish learning a knowledge point.

3.1.3. Project-based and scenario-based method of learning process

IEA curriculum system adopts the project-based method of learning process, and the student's final grade is the evaluation result of the project. Through the project-based and scenario-based learning, the interest and practicality of courses are increased, and the problems of low practicality and participation of entrepreneurship curriculum are solved. The entrepreneurship curriculum can not only be the study of the general theory, but also make the project practical. Meanwhile, IEA helps students to experience and learn a complete entrepreneurial process system composed by courses including the assessment of the feasibility and necessity and the formulation of the market entry strategy of the project, the establishment of company and its system, so as to improve students' entrepreneurial interests and practical abilities.

3.2. Personalized learning content

IEA system uses fragmented knowledge points for systematic reorganization, designs compulsory courses and a number of major elective courses, and realizes the personalized setting of courses so as to facilitate different kinds of students to select appropriate courses according to their own requirements. Through the preparation and implementation of virtual projects, corresponding knowledge points are set up in every step. When students run into problems in the operation process, they can take the initiative to learn and think so that their interests in learning is stimulated and learning efficiency is improved and finally students' initiative learning that is targeted is achieved.

3.3. Standardized teaching

IEA curriculum system is committed to building fragmented knowledge points into a learning system with systematic scientific logic, and forming a unified and simple presentation of teaching content with each section or phased teaching corresponding to its teaching methods and practice questions accordingly so that teachers can teach in a well-founded way. As for the learning content, the universal and characteristic teaching content are divided to help teachers quickly master the basic

principles or contents of entrepreneurship courses according to the actual needs, making it clear how to utilize their own expertise with entrepreneurship projects at the same time.

The system is different from the common entrepreneurship courses in the market. IEA has the advantages of short learning cycle, high learning quality, programmatic entrepreneurship and standardized process due to its content productization, product standardization and standard visualization. The standardized teaching system enables teachers with any professional background to provide teaching guidance with ease.

3.4. Application of IEA curriculum system

In 2018, IEA Trainee Handbook compiled by Mr. Liu Xianming was used nationwide as a textbook for teacher training of the Career Center of the Ministry of education. IEA curriculum system, first applied in Wuhan 101 entrepreneurship institute, has trained and offered certificates for teachers of universities nationwide with recognition from more than one thousand trained teachers as a teacher training program of the Ministry of education's career center. Amy, a student of IEA, has benefited a lot from the entrepreneurship courses. She has successfully applied the entrepreneurship knowledge to build a team with great coherence and innovation and launched *Aimeiwei* nut entrepreneurship project with a little achievements.

4. CONCLUSION

IEA is an entrepreneurial curriculum system with low entrepreneurial risk, high practicability, cross efficiency of knowledge points, easily-standardized implementation and teaching, platform-based resources, which has realized decision-making systematization, system engineering, engineering programming, program standardization, standard visualization and artistic visual effects. Through the introduction of the Internet technology, a sharing platform for entrepreneurial resources can be established and multitudinous entrepreneurial course's knowledge points can be integrated, which may help entrepreneurial mentors to quickly extract and utilize. Therefore, the pressure of their knowledge reserve and the difficulty of starting courses can be reduced as well, making it possible to cultivate enough entrepreneurial teachers for the society in a short time. The project-based environment of course not only increases the interest of learning, but also improves the practicality of the knowledge points of the course, assisting students in simulating the entrepreneurial environment, which is closely combined with reality.

In the future, IEA will continue to absorb new knowledge and keep pace with the trend of the times to establish a complete and iterative dynamic entrepreneurship curriculum system, making great contributions to the construction of national I&E education system.

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