

## Research on the Principle of Creating Golden Class Under the Background of Intelligent Times

Guo-ping Li

Suzhou Institute of Trade & Commerce, Suzhou, 215009, China

liguoping64@163.com

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**Abstract.** In the era of intelligence, schools' status as "educational spokesmen" has been impacted, and creating "golden lessons" has become a hot topic in the field of higher education. The principle plays an important role in the success or failure of the gold class. Taking investment courses as an example, with the help of the Hall of Meta-synthesis, the principle system of creating gold courses in the background of intelligent era is constructed, including the principles of occupation, actual combat, frontier, usefulness, sufficiency, unity of knowledge and practice, speculation, interest, comprehensiveness, student subjectivity, process dynamics, diversity of results, inspiration and innovation. It provides the principle basis for building "golden lessons".

### 1 Introduction

Neil Pozmann pointed out in his "Childhood Disappear" that the anthropological basis for the existence of education is the asymmetry between generations. Human beings have entered an era of intelligence. With the rapid development of information media, students can easily obtain information and knowledge that could only be controlled in schools. The status of "education spokesperson" of schools has been impacted. The foundation of school existence is to be able to choose all the important knowledge and skills suitable for students' life and to impart them to students in a simplified social environment-school. However, in the era of intelligence, it is no longer possible for schools to teach students all the knowledge they need as adults. At the same time, schools cannot create a simplified social environment because the future society is complex, changing and has no fixed form. The only thing that remains unchanged is change! The implication of vocational education is becoming more and more prominent. Education must be oriented to the profession!

After several years of pilot work, in may 2019, the general office of the Ministry of education issued a notice on comprehensively promoting the work of modern apprenticeship [1], informing the relevant work objectives and requirements of "summarizing the pilot experience of modern apprenticeship and comprehensively promoting modern apprenticeship". Its goal is to take Xi Jinping's new era of socialism with Chinese characteristics as a guide, fully implement the party's education policy, implement the fundamental task of cultivating people through moral education, deepen the integration of industry and education, school-enterprise cooperation, improve the education mechanism of combining morality with technology, combining work with study, and the quality evaluation mechanism of multi-party participation, further promote the reform of teachers, teaching materials and teaching methods, summarize the successful experiences and typical cases of modern apprenticeship pilot projects, and comprehensively promote the modern apprenticeship system with Chinese characteristics with government guidance, industry participation, social support, enterprise and vocational school education in major national strategies and regional pillar industries and other related specialties. One of its work priorities is the construction of a standard system. "According to the requirements of linking professional setting with industrial needs, linking curriculum content with professional standards, linking teaching process with production process, schools and enterprises jointly develop high-level teaching standards, curriculum standards, training condition construction standards and other relevant standards for modern apprenticeship specialty,

and do a good job in implementation." This undoubtedly provides directional requirements for "golden lessons" and plays an important role in practical teaching.

In the era of intelligence, schools' status as "educational spokesmen" has been impacted, and creating "golden lessons" has become a hot topic in the field of higher education. Some experts and scholars have made explorations on the golden lessons. For example, Cui Jia and Song Yaowu have made explorations on the teaching design principles of the "golden lessons" and proposed that the focus of learning content is the basic principle for the construction of the "golden lessons" and the whole brain teaching is the scientific principle for the construction of the "golden lessons" [2]. Hou Changlin proposed that application-oriented colleges and universities should embody the "seven natures": education, practicality, richness, frontier, speculation, research and artistry [3]. These research results have provided some help for the creation of gold classes.

Creating golden lessons is a complicated educational system project. How to effectively improve teachers' comprehensive ability and overall level, stimulate students' interest in learning, improve students' ability to analyze and solve problems and practical operation skills, and achieve the best teaching effect in a minimum of time, requires "schools and enterprises to jointly develop high-level modern apprenticeship professional teaching standards, curriculum standards and training conditions construction standards" [1], and the principle of creating golden lessons should be jointly completed by experts from schools and enterprises.

Due to the great significance of creating a golden lesson in the context of the era of intelligence, the formulation of the principle of creating a golden lesson needs to be more rigorous, comprehensive and easy to implement. Only by relying on the collective wisdom of relevant expert groups between schools and enterprises and through scientific procedures can the ideal selection principle be reached. On the other hand, Hall for Work Shop of Meta-Synthetic Engineering, or HWSME, is the system of Hall for Meta-Synthetic Workshop [4]. It is based on the successful experiences of seminar, c3/I3, combat simulation, information and information technology, artificial intelligence, man-machine integrated intelligent system, system science, etc. that Qian Xuesen, Dai Ruwei and Yu Jingyuan etc. have summarized the world's academic discussions over the past decades, and has introduced social thinking, collective thinking and knowledge engineering into system science to solve the problems of complex open giant systems with integrated methods. The method can also be used in formulating principles.

## **2 HWSME, hall of comprehensive integration**

HWSME process. In HWSME, the Internet provides experts with some representative opinions about the world wide web participants on a certain topic, and is a special problem-based expert in HWSME. Special problem-based experts and expert groups in the Internet constitute a generalized expert group in HWSME. Interaction is the only way to give full play to the overall advantages and emerge collective wisdom [5]. A large number of practices have proved that open complex giant systems exist objectively, and the comprehensive integration method is also feasible [6]. The Hall of Workshop for Meta-synthesis generates and emerges group wisdom, which can be applied to solve complex problems. The final conclusion of the discussion on the problem in the hall of comprehensive discussion system can be obtained through both manual induction and link structure analysis. especially when the logical relationship is complex and it is difficult to use manual method, link structure analysis method shows its superiority [4].

The key processes are expert group selection, information interaction and emergence of wisdom. For this reason, according to HWSME, experts, professors and practitioners from relevant industries have been organized, expert groups have been established, principles for creating gold lessons have been worked out, and an effective set of principles for creating gold lessons has been found, which is helpful for promoting the work of creating gold lessons.

Selection of Experts. Expert groups are an important part of the seminar hall system. They play an important role in proposing, discussing, modeling and finally making decisions to solve problems. Therefore, the selection criteria for experts are formulated from six aspects: high

professional knowledge; Rich practical experience; The urgent need for innovation; High interest and mission in pursuing truth; Active academic thinking and open mind. Although there are commonalities in the principle of creating gold lessons, each industry has its own particularity, which must be considered. On the basis of the principle of creating gold courses based on industry, it can be used for reference and extended to other industry courses. Therefore, according to the characteristics of the financial investment industry, we selected 23 senior securities and futures practitioners, securities and futures teaching personnel with rich experience in case teaching, and system engineering experts to form a panel of experts. They all have more than 8 years of relevant working experience and have good theoretical and practical experience, which is suitable for forming the analysis and evaluation expert group we need.

Information Interaction and Emergence of Wisdom. Divide the experts into several groups and focus on the discussion on the basis of the group discussion. In order to form effective interaction among expert groups, it is necessary to overcome interaction obstacles, establish and strengthen a common vision, and standardize the interaction process [5].

### **3 Formulate the principle of creating a gold class**

Object description. What is a "golden lesson"? On June 21, 2018, minister Chen baosheng proposed for the first time at the new era national conference on undergraduate education in institutions of higher learning that the "water course" should be truly transformed into a "gold course" with depth, difficulty and challenge by raising the academic challenge of college students, reasonably increasing the difficulty of the course, expanding the depth of the course, and expanding the selectivity of the course. In August 2018, the Ministry of education issued a special notice on the implementation of the spirit of the national conference on undergraduate education in colleges and universities in the new era (jiao Gao Han [2018] No.8), proposing that "colleges and universities should comprehensively sort out the teaching contents of various courses, eliminate 'water courses', create 'gold courses', reasonably improve the academic challenges, increase the difficulty of courses, expand the depth of courses, and effectively improve the teaching quality of courses". This is the first time that the concept of "golden lessons" has been officially used in the Ministry of Education documents. In the next two to three years, great efforts will be made to build five types of "golden lessons", including offline "golden lessons", online "golden lessons", online and offline hybrid "golden lessons", virtual simulation "golden lessons" and social practice "golden lessons" [7]. The golden lesson principle that we are going to formulate is based on this background.

The principle of gold class design. According to the characteristics of the financial investment industry, the principle of creating gold lessons is formulated based on HWSME. The specific discussion process is as follows:

ZHL represents the host and A, B, C, D, E, F ... represent different experts.

ZHL: OK, let's start the discussion now. First of all, according to the characteristics of the financial investment industry, the main characteristics of the investment courses are analyzed in order to decide what principles to use to portray them objectively.

A: For gold lessons, of course, there must be "professional principles". Otherwise, education will not serve production practice. We should make full use of Internet technology to build a professional environment for students and realize the field expansion from "in school" to "in career"! At the same time, the teaching of "professional skills" will be changed into the teaching of "key abilities" to realize the change of teaching content. For investment courses, such as securities investment analysis, futures trading, investment and financial management, the professional environment is to face the ups and downs of the financial market on the screen, so that students have to face the financial market chart to teach, stay in the profession, and not be empty to books! The key capabilities are the judgment and grasp of trend turning points and high-throw-low-suction points, as well as the selection of investment targets and fund management. The professional principles of gold lessons should reflect the professional environment and professional core competence.

B: (Agrees with A's point of view) "The principle of actual combat" is also very important. All teaching work should be oriented to actual combat! Students should carry out simulated actual combat, conduct simulated trading operations, and train students to deal with fundamentals or news, so as to verify them from the perspective of technical analysis and track the whole process of analysis and verification. This not only trains their patience and perseverance, but also grasps the analysis and grasp of market turning points. This is the hard work of investment.

C: the analysis of a and b is very reasonable! The "frontier principle" is also very important. The investment industry, especially securities and futures, has been gradually implementing quantitative trading. Programmed trading is also in full swing. Schools should also carry out education in this regard. Of course, teachers are required to keep up with the forefront of the industry and continue to learn. There is a lot of quantitative and procedural training in the society. Although the fees are very expensive, the market is very good. If your school does not have this kind of education, it will be out of touch with demand! Another principle is the "useful principle". There is too much introductory common sense in the existing teaching materials, but less and less useful with the development of the society. For example, some teaching materials on futures and investment and financial management do not have K-line market charts in the book. All they talk about are principles and functions of futures, principles and functions of insurance, etc. Once they are searched on the Internet, the book is finished, and students do not know how to judge the turning point and high point of the market. Therefore, the "sufficiency principle" is introduced to grasp the useful teaching of actual combat in the industry. Other knowledge introductions can allow students to search and read on their own when necessary.

D: The analysis of A, B and C is in line with the actual situation. In addition, "student subjectivity", "process dynamics" and "diversity of results" are also important. Students should become the main body of teaching, give full play to their subjective initiative and invest in courses. Students should follow the market situation every day. Teachers should choose the main points in their lectures, and then they should mainly imitate the training and perception of students. For example, when teaching the moving average index, the teacher first talked about a single moving average, opened the code of the index, explained the meaning of the index, observed the effect of moving average caused by modifying the code parameters, then added a moving average, made a combination of two moving averages, then let the students imitate the homework, and used the moving average and other indicators to formulate the trading strategy. In the simulated trading process of tracking the market, the advantages and disadvantages of the index were perceived, and further expanded into a combination of multiple moving averages. The teacher's explanation time only takes up a small amount of time in the class. The main time is reserved for students to imitate the practice and answer questions. The market is constantly changing. Before the final result comes out, the result is diversified and can go up and down. This is the real market feature, probability, and the opportunity to seek certainty in uncertainty.

E: agree with the previous analysis. Practice learning with students as the main body and simulated trading of investment courses are good ways. Education should change ways: from mechanical training to reflection on actions, it should conform to the principles of "unity of knowing and doing" and "speculation". Investment activities are easy to implement but difficult to understand without a lot of setbacks.

F: E's analysis is correct. Considering the respective characteristics of securities and futures, it is suggested to use futures instead of securities in simulated trading. The multi-space and two-way trading mechanism, T+0 mechanism, leverage mechanism, etc. of futures are relatively perfect and reasonable types of trading targets, giving students plenty of operation opportunities. In addition, the "enlightening principle" is also very important. if you draw a analogy from one example to another, you can bypass the class. for example, the moving average mentioned in d just now can be said to be the most widely used indicator. moving average combinations range from single moving average to multiple moving average. you should give full consideration to enlightening. as long as you teach double moving average, subsequent development can inspire students to expand

spontaneously in trading practice, and the effect will be better! This not only conforms to the "innovation principle", but also cultivates the students' innovative spirit and the craftsman spirit of keeping improving.

G: "Interest" is also very important. Interest is the best teacher! How to make teaching content and teaching form interesting is a test of teachers' professional skills. For example, it is possible to organize futures simulation competitions for students, selection competitions for trading targets, trend turning point judgment competitions, programmed programming competitions, etc. In addition, the graphical trading system is a very practical and interesting way and is also the forefront of the industry. "Comprehensive Principle" is also very important. Our investment courses must be based on the forefront of the industry and professional application. We must embody the comprehensive principle in teaching, and comprehensively apply fundamental and technical information and means to serve investment decisions.

After the above discussion, the host concluded that the principles of creating gold lessons in the context of the intelligent era include occupation, actual combat, frontier, usefulness, sufficiency, unity of knowledge and practice, etc. After repeated collective deliberation, the final conclusion was reached.

#### **4 Conclusion**

This method relatively comprehensively constructs the principle system for creating gold lessons under the background of the intelligent era, including the principles of occupation, actual combat, frontier, usefulness, sufficiency, unity of knowledge and practice, speculation, interest, comprehensiveness, student subjectivity, process dynamics, diversity of results, inspiration and innovation, etc. It provides the principle basis for creating "golden lessons". Although these principles are formulated collectively by investment experts, professors and scholars according to the example of investment courses, they can also serve as a good reference for other professional courses. It is based on higher vocational majors and has a good reference for undergraduate students.

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