

# Research on the Construction of Intelligent Tax Law Course System in Applied Colleges and Universities

Pu Yinhua, Liu Xiaoli

Southwest Jiaotong University Hope College, Chengdu, Sichuan, China, 610400

**Abstract:** With the development and promotion of artificial intelligence, the society's demand for tax talents has quietly changed, adding "intelligent" requirements. It requires intelligent talents who can perform extended treatment in the face of tax changes. At present, applied universities still prefer traditional theoretical knowledge teaching and simple tax filing operations to cultivate tax talents, and their intelligence is insufficient. Therefore, this article aims to build intelligent tax law courses based on the platform of intelligent students and build intelligent teachers as support, and build intelligent tax law courses and build a "three-in-one" intelligent tax law course system, thereby providing new ideas and suggestions for cultivating intelligent tax talents.

**Keywords:** Intelligent Tax Law Course Construction

## 1. Introduction

As Deloitte robots enter the accounting industry, it means that financial and taxation talents who are simply able to calculate cannot meet the needs of enterprises. As the main suppliers of financial and taxation talent training, applied universities need to consider the needs changes of enterprises as suppliers in terms of talent training plans, course openings, and course setting. The tax law courses in the finance and taxation major as the core basic course should introduce intelligence and build an intelligent tax law course teaching system to cultivate intelligent tax talents that meet the needs of social development and serve the development of the social digital economy.

## 2. Background on the construction of intelligent tax law courses

With the use of RPA financial robots in the accounting field, the society's demand for traditional financial and tax talents has undergone fundamental changes, from focusing on accounting and tax accounting to intelligent tax talents that can use intelligent technology to extract financial and tax-related information required for corporate decision-making and provide intelligent support for the development of enterprises.

At present, many scholars have conducted a lot of research on current intelligence. For example, Sun Qing (2021) proposed in the exploration of the teaching reform of tax law courses in applied colleges and universities under the background of intelligent finance and taxation, under the wave of digital economy, the market needs management accounting talents that can adapt to the era of intelligent finance and taxation, and talent training reforms in applied colleges and universities are imperative<sup>[1]</sup>. Zheng Xiaojing (2021) In the exploration and practice of tax law course teaching reform in colleges and universities under the background of "new liberal arts", the rapid development of modern intelligent information technology has brought opportunities and challenges to the reform of tax law course teaching. The traditional business talent training model can no longer meet the current new requirements for talents, and the reform of tax law course teaching is imperative<sup>[2]</sup>. In his article empowering accounting transformation with technological development, Liu Qin (2021) clearly pointed out that the continuous deepening of digital and intelligent transformation has brought great confusion and challenges to the development of the accounting career. For example, the construction of a shared center, the implementation of RPA projects, the launch of intelligent systems, and the promotion of business and financial integration have brought great confusion and challenges to the work of many grassroots accountants, and the transformation of accountants is urgent. We should actively establish a new accounting talent development system, implementing substantial reforms in the transformation of university faculty training, integration of accounting textbooks, development of modern teaching environments, and the conceptual evolution of accounting education<sup>[3]</sup>. Based on this,

colleges and universities, especially applied universities, need to make corresponding intelligent construction in terms of financial and tax talent training based on changes in the needs of talent demand parties.

This article mainly starts from the construction of the capabilities required by "intelligent students" and "intelligent teachers" and the construction content and teaching methods of "intelligent tax law courses". By establishing an intelligent learning platform, developing smart tax curricula, cultivating tech-savvy educators, and constructing an integrated three-dimensional tax education system, we aim to nurture intelligent taxation professionals that align with socio-economic demands, thereby advancing social and economic development.

### **3. Related literature sorting and related theories and concepts**

#### ***3.1. Research on literature related to intelligent tax law teaching***

With the emergence of new liberal arts and new engineering, papers on the intelligent construction of tax law courses are mainly concentrated in online and offline integration methods. For example, Li Xiaohong and Suo Jing (2023) proposed in the application practice of online and offline hybrid teaching in college tax law courses: By implementing a blended online-offline teaching model that delivers fundamental tax law knowledge through digital platforms for self-directed learning, while applying provisions of tax regulations to interactive classroom discussions, we can effectively enhance student engagement and elevate instructional quality<sup>[4]</sup>.

There are not many papers on the exploration of the specific and intelligent construction path of tax law courses, but there are still relevant research literature. For example, in the article "Ideas for the reform of tax law courses in vocational colleges", Hu Wenting (2022) proposed that it is necessary to optimize traditional textbooks, integrate relevant technologies on the basis of traditional textbook compilation, integrate electronic resources, and expand tax law-related case content to improve students' knowledge system and lay a solid foundation for students to enter their work<sup>[5]</sup>. This article intends to provide ideas for the intelligent construction of subsequent tax law courses through exploration of specific intelligent construction paths for taxation.

#### ***3.2. Related Theories and Concepts***

Lamber Ruakos, Rennie van East (2017) mainly explores the social impact of the new generation in human-machine symbiosis: household robots, nursing robots, police and private drones, automotive robots and military robots<sup>[6]</sup>. This means that the advent of the robot era, "omnipresent robots" will soon exist. This means that the machine can have a certain degree of intelligence.

Wisdom means wisdom, which is explained in the Chinese dictionary to quickly learn and understand new things. At present, there is no fully recognized authoritative definition of intelligence. Different disciplines and fields may have different focus and explanations. In the field of computer science, intelligence is usually related to technologies such as machine learning and deep learning, emphasizing the ability of machines to simulate human intelligence; in the field of psychology, intelligence may focus more on individual cognitive abilities and problem-solving abilities, etc. It usually refers to the individual's ability to perceive, understand, learn, reason, make decisions and adapt to the environment. It can be reflected in human thinking and behavior, or in the operation of machines and systems.

In the AI Knowledge Lecture, Tan Ying (2018) proposed that for the same environment and goals, with stronger ability to "acquire, transmit, process, regenerate and utilize information", it will be easier or more effective to achieve the goals, thereby showing a higher level of intelligence<sup>[7]</sup>. In the introduction to the application of big data and artificial intelligence published by Xu Ge, Wu Jinglan, Lin Dongliang (2021), it is proposed that intelligence is divided into natural intelligence and artificial intelligence. Artificial intelligence is the study of how to create artificial intelligent machines or intelligent systems to simulate human intelligent activities to extend the science of people's intelligence. At present, what artificial intelligence can solve regular intelligent behaviors, and computers cannot completely solve irregular intelligent behaviors<sup>[8]</sup>.

The principles and application book of artificial intelligence compiled by Liu Li, Lu Bin et al. (2023) proposes that artificial intelligence refers to the use of artificial methods to realize intelligence on machines. It is a science that studies how to construct intelligent machines or intelligent systems so that

they have the ability to simulate human intelligent activities to extend human intelligence<sup>[9]</sup>. Therefore, based on the review of relevant literature, this question uses this article to extend the meaning of artificial intelligence to the construction of tax law courses, that is, by studying the intelligent construction of tax law courses, building a "intelligent tax law course teaching system". Through the study of this intelligent tax law course system, the learning of this intelligent tax law course system can achieve the improvement of innovative capabilities, and further extend human intelligence.

#### **4. Objectives and contents of the construction of intelligent tax law course system**

##### ***4.1. Objectives for the construction of intelligent tax law course system***

The construction of intelligent tax law courses mainly uses a trinity-integrated intelligent tax law course system based on intelligent students, based on intelligent tax law courses and supported by intelligent teachers, so as to cultivate the required intelligent tax talents for the society, enhance the core competitiveness of enterprises, and serve to promote social and economic development.

##### ***4.2. Contents of intelligent tax law course construction***

###### ***4.2.1. Intelligent Student***

Through sorting out the literature, it was found that the main research on "intelligence" is to apply human intelligence to machines. For people themselves, they have certain wisdom, that is, the popular saying "intelligence". It's just that because each person's living and learning environment is different, his intelligence has certain differences in some aspects. Therefore, for the construction of intelligent students, the main task is to clarify which ones are essential in their subsequent life and career, which ones are shortcomings, and then target the improvement of their corresponding abilities.

Through preliminary research, the basic abilities that students who graduated from finance in their subsequent careers are mainly as follows: Figure 1: Intelligent Student Ability Chart.

###### ***4.2.1.1. Basic abilities***

① Self-management ability: As the capital of revolution, the body is the foundation of everything. In an increasingly fierce competition, it is necessary to have good physical fitness. According to market feedback, the high-tech industry and traditional industries are even more age discriminatory. Because young employees can adapt to new changes more quickly, their salary requirements are relatively low, which leads to a decrease in employment competitiveness of employees over 35 years old. According to data from the recruitment website, the demand for programmers over 35 years old in the recruitment market has dropped by 50% compared with programmers under 30 years old. For the fundamental reason, after the age of 35, as the work pressure continues to increase, the physical fitness of programmers decreases, resulting in a decrease in work efficiency. The same situation exists for other companies. Now the employment market has a tendency to younger age requirements for applicants. Under the same conditions, I am more willing to hire young employees. Therefore, if you want to maintain continuous competitiveness, you need to have strong self-management ability and be able to manage your own time and body well.

In order to strengthen students' self-management ability, students need to establish correct physical management awareness during school. Schools can urge students to manage their health well by providing intelligent fitness mechanisms. Regarding students' self-time management, through the development of an intelligent tax curriculum system, students need to be able to complete relevant tasks efficiently within the specified time. Therefore, during the teaching process of intelligent teachers, some knowledge can be placed before the classroom, and students can complete the content within the specified time through intelligent means such as: certain online learning, assessment platforms and offline assignment of tasks, and provide timely evaluation and feedback, and appropriate rewards can be given to improve students' enthusiasm for completing tasks efficiently. Provides its ability to manage its own time.

② Learning ability: If you want to have great development ability in the workplace, you need to have good learning ability. It is mainly reflected in the following two aspects: on the one hand, it can maintain continuous learning ability, and be able to screen the learning information you need in different environments, and efficiently master the required learning content; on the other hand, it can quickly feedback the changes in the current micro and macro environment, and can quickly adapt to

changes and make positive responses.

In order to improve students' learning ability, intelligent teachers need to classify and sort out the contents of teaching according to the students' situation when setting up intelligent tax law courses, and set up contents for pre-class preview, in-class learning, and after-class review based on students' learning ability and learning situations through online, offline, smart devices, etc. For students demonstrating strong academic aptitude, both the complexity and scope of curricula should be strategically enhanced; for students with weaker learning ability, they need to set up content with weaker difficulty, guide and track their learning status; and provide real-time positive feedback on their learning status to improve their learning ability.

#### 4.2.1.2. Release ability

①Have innovative thinking and practical ability: be able to discover, raise problems in learning and practice, and be able to solve problems.

②Have good communication and collaboration skills: the ability to quickly integrate into different environments, and be able to communicate efficiently, obtain the required information, and solve problems.

Through the ability to extend the application, you can quickly integrate into the employer and solve problems easily when encountering problems at work. Reduce the employer's employment costs and increase corporate value.

In this part of the ability, intelligent teachers can adopt teaching methods such as flipped classrooms, role-playing, project grouping, etc. When designing intelligent courses, educators should integrate collaborative learning methods that allow students to master course content through group work, thereby enhancing communication skills, teamwork capabilities, innovative thinking, and practical competencies.

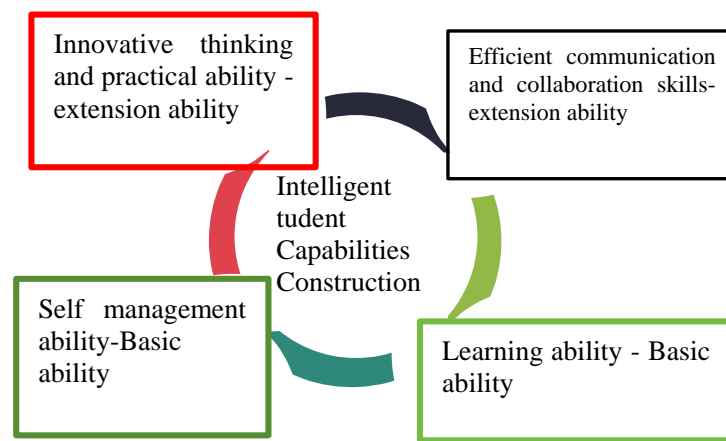


Figure 1 Intelligent student capability requirements table

#### 4.2.2. Intelligent teacher

Intelligent teachers need to have output effectiveness. It mainly refers to the ability to transfer knowledge and then impart it to others. Simultaneously, educators should cultivate students' creative thinking competencies during the knowledge transmission process.

Therefore, the following abilities are required.

##### 4.2.2.1. Basic abilities

①Have rich teaching experience and subject knowledge, be able to extract relevant professional knowledge and effectively impart it to students through intelligent and personalized methods.

②Have the ability to learn and apply advanced teaching technology, be able to quickly understand and master various intelligent teaching tools and platforms, and use them to design, implement and evaluate teaching. Through the analysis of students' learning data, we can understand students' learning status and problems, adjust teaching strategies in a timely manner, and provide accurate teaching guidance.

This part of the basic abilities requires teachers to expand their reserved knowledge. They can use

various intelligent teaching resources, online and offline methods provided by the school to understand and learn the relevant theories and practices involved in the courses taught. This will improve teaching experience and teaching ability.

#### 4.2.2.2. *Renewal ability*

Be able to serve your scientific research ability through professional course teaching activities, and at the same time, you can feed back your scientific research ability into teaching work. Through the improvement of your innovative ability, you can improve students' innovative thinking ability in the teaching process.

As an indispensable component of scientific research, scientific research is an essential component of efficient teachers, especially when intelligence is quickly integrated into daily life and work. As teachers who teach and solve problems, efficient teachers should quickly respond to the current environmental variables and be able to respond to this change in a timely manner. Furthermore, educators should translate pedagogical knowledge, professional skills, and academic insights into impactful research outcomes, thus reciprocally enhancing instructional practices while contributing to socio-economic advancement.

#### 4.2.3. *Intelligent tax law course*

Intelligent courses need to have intelligent characteristics, and learning through this course allows the learning object to extend professional intelligence. How to build smart courses?

In terms of content: design according to the purpose of cultivating intelligent tax talents. You cannot just take the content of the textbook as its entire content. The formation of tax law textbooks has a certain delay. Combined with multiple factors such as learning time, the content of the textbook alone cannot meet the requirements for cultivating intelligent tax talents. Therefore, it is necessary to expand the teaching content: by adding relevant tax-related knowledge modules on the State Administration of Taxation, the Ministry of Finance and other websites to the course teaching content to make up for the above shortcomings.

In terms of teaching: the expanded tax law course content needs to be subdivided into three parts: the part of direct memory + the part of understanding + the need to integrate the front and back, and design the corresponding teaching of each part. For the memory part: the content can be set into interesting short videos, rumors, etc., uploaded to the intelligent teaching platform, so that students can watch it repeatedly before and after class to deepen their impressions, and facilitate the learning and mastery of subsequent courses; for the part that needs to be understood: the teacher needs to be the focus to give detailed explanations, and can use various resources such as online and offline to teach so that students can understand and apply it; prepare for subsequent integrated content. This part mainly exercises students' ability to learn and analyze problems; for the parts that need to be integrated: the teacher needs to be able to perform intelligent designs, which can be presented through projects, cases, etc., allowing students to learn and master this part of the content through grouping, role-playing, etc. This part mainly exercises students' team collaboration ability and innovative thinking ability.

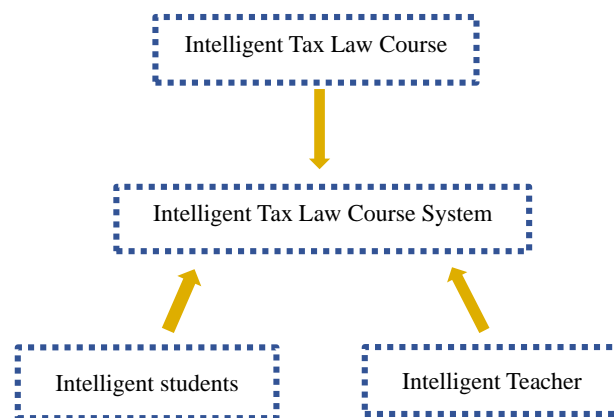


Figure 2: Applied college intelligent tax law course system diagram.

In terms of evaluation: It is recommended to adopt a 1+N assessment method. The assessment part can be designed according to the teaching content: the direct memory part + the understanding part, mainly on the paper, while the integration and integration part is mainly assessed through projects and

other methods. At the same time, the corresponding weights are set for the situation before and after the classroom, online and offline semesters, and a comprehensive measure of students' learning of intelligent tax law courses.

Finally, by building a three-ring intelligent interactive intelligent tax law course construction system by focusing on intelligent students, based on intelligent tax law courses and supporting intelligent teachers, we will complete the construction of intelligent tax law courses. See Figure 2: Applied college intelligent tax law course system diagram.

## 5. Expected results in construction

Based on the intelligent era, in view of the current situation where tax law courses focus on either simple theoretical education or simple theoretical + practical education, it is based on intelligent students and based on intelligent tax law courses, and intelligent teachers support the creation of a replicable intelligent tax law course system, providing ideas for the construction and development of intelligent courses.

## 6. Conclusion

Based on the current context of intelligence in which we have fully penetrated into our work and life, this article thinks about how to cultivate intelligent tax talents needed to adapt to the development of the digital and intelligent economy era as an application-oriented and efficient way. By analyzing the abilities required by intelligent tax talents, it is proposed to build an intelligent student platform and build intelligent tax law courses as the basis, and develop intelligent teachers as the support for the construction of intelligent tax courses. Educational institutions must develop digitally competent tax professionals equipped to navigate the intelligent economy, thereby driving sustainable socio-economic progress.

## Acknowledgement

This work was supported by the Southwest Jiaotong University Hope College Online and Offline Mixed First Class Undergraduate Course Tax Law I Project [project number YLKC2022007].

## References

- [1] Sun Qing. *Exploration of teaching reform of tax law courses in applied colleges and universities under the background of intelligent finance and taxation* [J]. *Accountant*, 2021, (21):115-116.
- [2] Zheng Xiaojing. *Exploration and practice of teaching reform of tax law courses in colleges and universities under the background of "new liberal arts"* [J]. *Accounting Learning*, 2021, (21): 161-163.
- [3] *Technology development empowers accounting change* [J]. Liu Qin. *Friends of Accountants*, 2021(19)
- [4] Li Xiaohong, Suo Jing. *Application practice of online and offline hybrid teaching in college tax law courses* [J]. *China Agricultural Accounting*, 2023, 33(07):4-6.
- [5] Hu Wenting. *Ideas for the reform of tax law course teaching in vocational colleges* [J]. *Journal of Harbin Vocational and Technical College*, 2022, (01):31-33.
- [6] Lambert Ruakos, edited by Rennie van East, *human-computer symbiosis* [M], Renmin University Press, 2017(07):4-5
- [7] edited by Tan Ying, *Lecture on Artificial Intelligence Knowledge*[M], People's Publishing House. 2018(04):3
- [8] Edited by Xu Ge, Wu Jinglan, Lin Dongliang, *Introduction to the Application of Big Data and Artificial Intelligence* [M], University of Electronic Science and Technology Press, 2021(01):19-20
- [9] Liu Li, Lu Bin, Li Jirong, Jiang Limei, *Principles and Applications of Artificial Intelligence* [M], Beijing University of Posts and Telecommunications Press, 2023(04):4