

# Design and Practice of Thinking and Politics in The Course of Numerically Intelligent Management Accounting

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## Abstract

University education adheres to moral cultivation and integrates socialist core values into the classroom teaching process. The age of data intelligence has accelerated the transition of accounting from accounting to management accounting. Numerical intelligent management accounting is the core course of accounting major and financial management major in applied undergraduate universities. This paper starts with the significance of integrating ideological and political elements into classroom teaching, combines with the main teaching modules of intelligent management accounting, designs the path and method of integrating ideological and political elements into management accounting, provides suggestions for carrying out ideological and political curriculum of intelligent management accounting, and puts into practice the university education concept of building moral and cultivating people.

## Keywords

Curriculum thought and politics; Management accounting; Design and practice.

## 1. Introduction

In May 2020, the Ministry of Education issued the Outline of Curriculum Ideological and Political Construction in Colleges and Universities, which pointed out that the curriculum ideological and political construction should be promoted according to the characteristics of majors, and the subject system, academic system and discourse system with Chinese characteristics should be built under the guidance of Marxism in classroom teaching. To comprehensively promote the ideological and political construction of the curriculum is to guide the values in the knowledge imparting and ability training, and help students to shape the correct world outlook, outlook on life and values, which is the due meaning of talent training, but also an essential content.

Curriculum thinking and politics is the requirement of The Times, and educating people is the responsibility of higher education. To implement the requirements of the new era – the original aspiration, the mission, the great rejuvenation of the nation, a new journey, cultural self-confidence, the path of peaceful development and the building of a community with a shared future for mankind – higher education should play a good role in educating people, train builders and successors of socialism in the new era, builders of socialism with Chinese characteristics, and train pioneers and innovators of the era. It is very necessary to put forward the requirements of ideological and political education in the curriculum of colleges and universities, which should integrate the ideological and political education into every link and aspect of the curriculum teaching and reform, so as to achieve moral cultivation and silence.

## 2. The Significance of Implementing the Course of Thinking and Politics in Numerically Intelligent Management Accounting

Management accounting is produced and developed to meet the needs of internal management of enterprises. It has experienced three stages: from standard cost method emphasizing the management of use value, to responsibility cost method emphasizing the management of people in the process, and then to activity-based costing method emphasizing the combination of value management and people management. Management accounting is committed to effectively combining internal management and external reporting. To maximize the value of the enterprise. The report of the 20<sup>th</sup> National Congress of the Communist Party of China pointed out that accelerating the development of digital economy and the development of digital intelligence technology also brought opportunities and challenges to management accounting transformation. Under the goal of the integration of business and finance, management accounting uses information to effectively draw up plans and solve various decision-making problems. The functions of management accounting mainly include forecasting, decision-making, budgeting, control, assessment and reporting. In the process of changing from traditional accounting to management accounting, enterprises need more versatile talents. Management accounting talents should have good character, good professional ethics, but also have excellent professional knowledge and innovative spirit. Combining with the specific situation of our country, it is necessary to innovate and develop the application of management accounting in Chinese enterprises to create value for enterprises and society.

The demand for talents in management accounting is also the main content of the ideological and political elements of the course. The ideological and political elements of the course mainly include three aspects: responsibility, how to behave and how to do things. Among them, responsibility refers to the feelings of the family and the country, including the consciousness of the Party and the country, ideas and beliefs, the four self-confidence, the core socialist values, the national spirit and the spirit of The Times, the Constitution and the rule of law, and the fine Chinese culture. How to be a person refers to character building, including moral sentiment, morality (personal, social, professional, family), dedication, law-abiding, controversy, etc. How to be a person can also refer to personality and humanistic qualities, emotions, love, self-esteem, life outlook, taste, character, health, intelligence, observation, imagination, thinking, judgment, reasoning, logic, thinking, etc. How to do things refers to professional ethics and scientific spirit, including professional spirit, professional ethics, professional norms, professional behavior, craftsman spirit, professional identity, serious and pragmatic, pioneering, research, perseverance, diligence, vision, academic integrity, historical materialism, epistemology and methodology, critical thinking, innovative consciousness, etc.

It is particularly important to integrate the ideological and political elements into the teaching of mathematical intelligent management accounting. The course of management accounting should implement the basic idea of educating people by virtue, and train the management accounting talents needed by The Times in the aspects of moral quality, professional ability and scientific spirit.

## 3. The Ideological and Political Design of The Implementation Course of Numerically Intelligent Management Accounting

### 3.1. Design concept

Numerical intelligent management accounting needs the basic knowledge of accounting, management and economics, which belongs to an interdisciplinary subject. Numerical intelligent management accounting aims to increase the value of the enterprise through

forecasting, decision-making, budgeting, control, assessment and reporting. In classroom teaching, teachers should integrate moral education and socialist core values, cover the whole process of teaching, and promote the all-round development of management accounting talents.

### 3.2. Teaching objective design

The teaching goal should be reflected in the rational discrimination to sort out the correct view of history. Based on disciplines and industry fields, closely related to the needs of integrated development of industry and finance, cultivate students' craftsman spirit. Knowledge, practice and trust, establish cultural confidence and national pride, and cultivate industry feelings and home-country feelings.

### 3.3. Overall design idea

As a branch of accounting, the essence of digital intelligent management accounting is to provide accounting information accounting information system to meet the needs of enterprise internal management, mainly including accounting information system based on business decision and management based accounting information system. Among them, the accounting information system based on operation management includes forecast, short-term operation decision and long-term operation decision. The accounting information system based on management control includes strategic management, budget management, performance evaluation and responsibility management. Management accounting information system and financial accounting information system complement each other, can better play the role of accounting information.

The Ministry of Finance promulgated the Guiding Opinions on Comprehensively Promoting the Management Accounting System in October 2014, the Basic Guidelines on Management Accounting in June 2016, and successively promulgated 34 guidelines on the application of management accounting in 2017 and 2018, thus forming one guiding opinion, one basic guideline and 34 application guidelines. Constitutes our country management accounting frame system. The application guidelines consist of eight general guidelines and 26 specific methodological guidelines. The eight general guidelines include strategic management, budget management, cost management, operation management, investment and financing management, performance management, risk management, and management accounting reporting. Twenty-six specific methodological guidelines include strategic mapping, rolling budgeting, zero-base budgeting, flexible budgeting, activity-based budgeting, target costing, standard costing, variable costing, Activity-based costing, cost-volumetric profit analysis, sensitivity analysis, marginal analysis, constrained resource optimization, internal transfer pricing, multidimensional profitability analysis, discounted cash flow method, project management, scenario analysis, and close Key performance index method, economic added value, balanced scorecard, performance prism model, risk matrix, risk list, enterprise management accounting report, management accounting information system.

The course thought and politics into the mathematics intelligent management accounting classroom teaching is to integrate the course thought and politics into the mathematics intelligent management accounting course main content module. Ideological and political elements are mainly reflected in responsibility, how to be a person and how to do things, which specifically reflects the feelings of the family, socialist core values, law-abiding, the spirit of The Times, the spirit of innovation, professional ethics and other aspects. The organic integration of ideological and political elements and management accounting course modules implements the fundamental task of moral education and cultivating people. As shown in Table 1.

**Table 1.** Design of ideological and political elements of the implementation of digital intelligent management accounting course

module	Corresponding course chapter	Ideological and political elements of the course	Curriculum ideological and political elements into the way
Strategic management	Introduction to management accounting	Feelings of family and country	Adhere to improve and implement the mission and objectives of the enterprise.
Budget management	Total budget management	Chinese traditional culture	Thirty-one of the forty-nine chapters of the Book of Rites: "What is forewarned is established, and what is not forewarned is lost." Make a comprehensive budget system and implement the enterprise strategy.
Cost management	Adult behavior, Variable cost method, Target cost management, Activity-based costing	The spirit of The Times with reform and innovation at its core	Break through stereotypes, explore boldly, and dare to create ideas, deal with unrealistic and irregular activity cost drivers, optimize internal processes, reduce costs, and implement the policy of reducing costs and increasing efficiency.
Operation management	Cost-volume-profit analysis, Business forecast, Production and operation decision	Seek truth from facts	The relationship between cost, sales and profit should be predicted based on historical data, and sales should be predicted based on actual conditions, and future sales should not be distorted. Make business decisions based on objective reality.
Investment and financing management	Investment management, Financing management	Innovative spirit Corporate social responsibility	In the investment analysis of project feasibility, it is necessary to have innovative spirit and pay attention to green projects and environmental issues.
Performance management	Responsible accounting, Performance evaluation	Core socialist values	The formulation of responsibility standards should be fair and just, the performance evaluation should balance the interests of all parties, and the balanced scorecard or EVA should be used for performance management of enterprises.
Management accounting report	Management accounting report preparation	Professional ethics	To ensure the authenticity, effectiveness and completeness of the report.

## 4. Design of Teaching Methods

### 4.1. Case study method

Case analysis teaching method is an effective method of combining theory with practice. In the process of accounting transformation from traditional accounting to numerical intelligent management accounting, it is necessary to make the theory better serve Chinese enterprises and enable students to better apply the knowledge they have learned to the work scene. The case study method enables students to have an in-depth understanding of China's local enterprises, capital markets, national industries and other relevant policies. Sum up the truth and seek truth from facts in practice, so as to implement the ideological and political elements of the curriculum. The case analysis method can be used in each module teaching. For example, in the modules of strategic management and performance management, China Resources Group promotes balanced scorecard and strategic map, combines the existing 6S management

system, carries out a series of changes in management accounting, strengthens the connection between budget and strategy, and strengthens the application of financial indicators in business units. For example, activity-based costing can more accurately allocate indirect costs and better reflect enterprise costs than traditional costing. However, activity-based costing is not widely used in practice due to high implementation costs, unclear cost drivers and other reasons. After the implementation of activity-based costing, Changan Automobile gives full play to the spirit of reform and innovation, effectively identifies the motivation of activity-based costing, eliminates non-value-added activities, achieves accurate measurement of product cost, and lays a good foundation for product pricing and management decisions.

#### 4.2. Mixed online and offline teaching

Online and offline mixed teaching is mainly based on MOOCs or other online courses, the use of appropriate digital teaching tools, combined with the offline courses of the university, arrange students to learn online, carry out offline teaching, and create online and offline integration of courses. Mixed teaching makes classroom teaching no longer "full classroom" and "no head up". Management accounting is a practical course, which requires the integration of knowledge. The integration of online and offline enables students to start from the reality, find realistic problems and innovate solutions to problems, so as to improve students' practical ability and basic quality.

Online and offline mixed teaching enables students to establish a holistic perspective, from passive learning to active learning, to establish teamwork, collaborate to solve practical problems, train the spirit of cooperation, and help students understand the connotation of artisan spirit. The application of management accounting requires the management to be responsible and pay attention to society and the environment. Pay attention to the pre-study and test of digital intelligent management accounting related videos before class; In the class, the introduction of questions is adopted to explain or flip the classroom to enhance the interaction between teachers and students; After class, we should explore more in-depth questions independently to form a virtuous circle of advanced learning. The assessment of the course should take into account both online and offline parts, mobilize the enthusiasm of students' mutual assessment, and take into account teachers' comments.

##### (3) Build a platform for scientific research and practice

Management accounting needs theoretical support in the process of localization. Set up management accounting research for undergraduates, guide students to study classical literature, pay attention to and interpret the latest national management accounting regulations, improve students' theoretical level, and lay a solid theoretical foundation for guiding practical work. Encourage students to participate in discipline competitions, give students full guidance in related competitions, timely solve professional problems encountered in competitions, and strengthen the connection between teaching and competitions. The discipline competition is usually based on the data of an enterprise to build the relevant content of the intelligent management accounting module, including cost management, budget management, activity cost management, performance management, management accounting report, etc. The competition requires students to have a holistic view and strategic planning, and requires team division of labor, cooperation, and effective communication, which can well reflect the ideological and political elements of the course. Build a joint construction platform for schools and enterprises, implement the double tutor system, increase students' practical opportunities, apply knowledge to practical work, and stimulate students' enthusiasm for learning and innovative spirit. Establish an international exchange platform, introduce the perfect curriculum system of management accounting teaching in China, analyze the successful international management accounting cases, combine the actual situation in China to make

local improvements, and reflect the ideological and political elements of the course from an international perspective.

### 4.3. Design of teaching assessment method

Establish diversification of evaluation subject, diversification of evaluation content. The evaluation system should be able to measure students' knowledge, ability and quality comprehensively. Evaluation subjects include teachers, business mentors, students and peer experts. The content of evaluation includes students' independent learning, case analysis, classroom performance, practice achievement, etc. The evaluation criteria should reflect the ideological and political elements of the course, and reflect the students' innovative spirit and teamwork ability. As shown in Table 2.

**Table 2.** Diversification evaluation system

Evaluation content	Evaluation subject	Curriculum ideology and politics	Curriculum ideological and political elements into the way
Self-study before class	Online system; Student self-assessment	The spirit of exploration; Pursuit of truth	Learn knowledge independently through MOOCs or videos before class, and have the spirit of discovering problems and exploring the truth.
Flipped classroom in class	Teacher evaluation; Student evaluation	Teamwork; responsibility	In the class, we should carry out reasonable division of labor in groups, assume their respective responsibilities, and work together for the sake of group results.
After school competition or practice	External tutor; Game system	Seek truth from facts; Integration of knowledge and action	In practice, we should convert knowledge into practice, and seek truth from facts when encountering unreasonable problems, rather than acting according to experience.

## 5. The Practical Thinking on The Implementation of The Course of Thinking and Politics in The Management Accounting with Numerical Intelligence

### 5.1. Establish a sound concept of talent training

The Times change, the needs of talents are also changing, the top priority of talent training work to solve the problem of what to train under the requirements of The Times, how to train people, for whom to train people. Adhere to the fundamental task of cultivating people by virtue, and train socialist builders and successors with all-round development of morality, intelligence, physical fitness, the United States and labor. It is necessary to clarify the basic connotation of talent training, that is, talents should have morality, talent, responsibility and feelings. Talent training should not only have the corresponding knowledge, ability and quality, but also need to have an international perspective and local practice. Guide and stimulate students' curiosity, imagination and innovative thinking, and establish a professional spirit of love and dedication.

It is necessary to cultivate new people with a healthy body, a sound personality, a spirit of struggle and a sense of responsibility to take on the great responsibility of national rejuvenation.

### **5.2. Perfect the organizational guarantee of implementing curriculum ideology and politics**

Curriculum ideological and political construction is a systematic project, which needs to carry out comprehensive planning and strengthen top-level design. Establish a perfect organization system to ensure the smooth implementation of curriculum ideology and politics. Colleges and universities should set up curriculum thinking and politics expert advisory committee to provide teachers with policy interpretation of curriculum thinking and politics, excellent case promotion, curriculum thinking and politics experience summary and so on. At the same time, colleges and universities should establish a perfect curriculum ideological and political construction plan, improve the working mechanism, and form a reasonable supervision mechanism. Colleges and universities gradually realize their own distinctive characteristics in the implementation of curriculum ideological and political construction.

### **5.3. Strengthen the construction of teachers who implement curriculum ideology and politics**

The implementation effect of curriculum ideology and politics depends on the quality of teachers. To improve the implementation effect of curriculum ideology and politics, it is necessary to improve the construction of teachers. Establish a perfect teacher training system, through offline teaching, online communication, expert guidance, peer demonstration to meet the training needs of teachers' ideological and political curriculum. Improve the structure of teachers, realize the combination of teachers of different disciplines and different ages, and actively explore the initiative of teachers in curriculum ideological and political construction. Establish a perfect evaluation system for teachers of curriculum ideology and politics, improve the assessment and incentive mechanism, and take into account both teachers' scientific research and teaching. Teachers should be actively guided to improve their ideological and political quality and ability to educate people.

## **6. Conclusion**

Through the above analysis, we can see that it is necessary and feasible to integrate ideological and political elements of the course into the intelligent management accounting course. By combining the modular teaching of the management accounting system, we can establish students' feelings of home and country, cultivate correct socialist core values, and aim at "cultivating morality and cultivating people" to provide guarantee for the training of qualified talents for modernization construction.

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