Construction and Practice of the "Integration of Theory and Practice" Smart Learning Workshop Model from the Perspective of Digital Intelligence

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Abstract: In the current context of accelerated digital and intelligent transformation, the marketing industry has increasingly diverse requirements for talents. They need not only solid theoretical knowledge but also cutting - edge digital and intelligent practical skills. However, the teaching of marketing majors in colleges and universities faces the dilemmas of disconnection between theory and practice and lagging cultivation of digital and intelligent skills. This article takes the marketing major of Hubei Business College as a practical case and constructs the "Integration of Theory and Practice" Smart Learning Workshop Model. This model innovates from multiple dimensions. It creates a "Three - Dimensional Ability" training system covering theoretical literacy, digital and intelligent skills, and practical combat ability. It builds a "Stepped" digital and intelligent curriculum group, which is divided into four levels: basic theory, technical tools, practical application, and interdisciplinary integration. It innovates the "Three - Scenario Integration" teaching model, with coordinated teaching in online, offline, and enterprise scenarios. It also establishes a "School - Enterprise Dual" collaborative mechanism to achieve resource sharing and two - way empowerment Practice shows that this model has effectively improved students' digital and intelligent marketing capabilities and professional qualities. Students have achieved excellent results in competitions, and the employment rate of the major has significantly increased. This provides a replicable solution for the professional teaching reform of applied undergraduate institutions and opens up a new path for cultivating compound marketing talents to meet the needs of the new economic era.

Keywords: Digital Intelligence; Integration of Theory and Practice; Smart Learning Workshop; Marketing; Teaching Reform

1. Introduction

With the in-depth integration of big data and artificial intelligence technologies into marketing scenarios, the ability requirements for marketing talents in the new economic era have undergone profound changes, presenting a compound characteristic of "theory + technology + practical combat". Marketing talents are required not only to master theoretical knowledge such as consumer behavior analysis and marketing strategy formulation but also to possess digital and intelligent practical skills such as data mining, intelligent marketing tool application, and omnichannel operation. However, currently, marketing majors in colleges and universities generally face dilemmas such as "teaching content lagging behind industry demands", "practical scenarios being divorced from the real business environment", and "shallow school-enterprise collaboration", resulting in a mismatch between talent cultivation and enterprise requirements.

As an applied undergraduate institution, Hubei Business College aims to "cultivate compound marketing talents to meet the needs of the digital and intelligent industry". In 2021, it launched a provincial teaching research project titled "Exploration of the 'Integration of Theory and Practice' Smart Learning Workshop Model from the Perspective of Digital Intelligence - Taking the Teaching Reform of the Marketing Major as an Example" ① In response to the pain points of marketing major teaching, it innovatively proposed the "Integration of Theory and Practice" Smart Learning Workshop Model. Supported by digital and intelligent

technologies and based on real marketing scenarios, this model deeply integrates theoretical teaching and practical training to construct a trinity education system of "knowledge transfer - skill training - practical application", aiming to solve the core contradiction of "separation of learning and application" in traditional teaching and provide a new paradigm for marketing talent cultivation in the new economic era.

2. Research Foundation and Innovation Points

Foreign exploration of smart education and teaching workshops started relatively early. The "Teaching Factory" concept proposed by Nanyang Polytechnic in Singapore emphasizes the in-depth integration of teaching equipment, school-enterprise cooperation, and real projects[1]. The CDIO engineering education model advocated by universities such as the Massachusetts Institute of Technology realizes "learning by doing" with the product life cycle as the carrier[2].. In recent years, domestic scholars have focused on the construction of smart education ecosystems, proposing that smart learning workshops should possess characteristics such as "the combination of virtual and real, the integration of theory and practice, and the unity of knowledge and action". However, existing research mostly remains at the theoretical framework level, lacking practical implementation paths for specific disciplines. Especially in the marketing major, a replicable integration paradigm of "digital and intelligent technology + marketing practice" has not yet been formed. As an important part of the pilot project of the Ministry of Education's New Business Smart Learning Workshop, this research has the following innovative significance:

Theoretical Innovation: Construct a theoretical model of the "Integration of Theory and Practice" Smart Learning Workshop, enriching the theory of applied talent cultivation in the digital and intelligent era[3].

Practical Breakthrough: Relying on the Kun peng Class of Huawei Cloud College, achieve the in-depth integration of "technical platform + real scenario + enterprise resources", and form a promotable teaching reform plan.

Ecological Construction: Explore the "School-Enterprise Dual" collaborative mechanism, providing a practical sample for universities and enterprises to jointly build a smart learning ecosystem[4].

3. Analysis of Existing Problems in Marketing Major Teaching

3.1 Mismatch between Teaching Content and Industry Demands

The traditional curriculum system mainly focuses on traditional content such as the 4P theory and marketing planning, with insufficient integration of cutting-edge technologies such as big data analysis (e.g., Python data processing, Tableau visualization) and intelligent marketing tools (e.g., the HubSpot marketing automation platform). As a result, students lack the core ability of "data-driven decision-making"[5].

3.2 Lack of Real-Scene Support in Practical Teaching

Existing training mostly relies on simulation software, such as market research and prediction training, marketing planning training, and enterprise sand table simulation training[6]. It is disjointed from the real marketing process of enterprises: data collection - user profiling - precise placement - effect evaluation. Students complete marketing plans using virtual data in curriculum design but lack practical experience in processing desensitized data from e-commerce platforms and dealing with public opinions on social media.

3.3 Insufficient Depth of School-Enterprise Collaboration

School-enterprise cooperation remains at the level of "visits and internships + lectures". Real enterprise projects, data resources, and teaching staff have not been effectively integrated into teaching, making it difficult for students to access the forefront trends of the industry in the classroom[7].

3.4 Evaluation System Fails to Reflect Digital and Intelligent Characteristics

Traditional assessments mainly rely on theoretical written tests, with insufficient weight given to the evaluation of data processing capabilities, marketing tool operations, and practical project results. As a result, they cannot comprehensively reflect students' digital and intelligent marketing

capabilities[8,9].

4. Construction Path of the "Integration of Theory and Practice" Smart Learning Workshop Model

4.1 Goal Reconstruction: Establish a "Three-Dimensional Ability" Training System

Centering on the requirements of digital and intelligent marketing positions, the training goal is refined into three dimensions: "theoretical literacy, digital and intelligent skills, and practical combat ability.

Theoretical Literacy: Master core theories such as consumer behavior theory, marketing strategy planning, and brand management, and develop business analysis thinking.

Digital and Intelligent Skills: Possess technical capabilities such as data collection (e.g., Web scraping), data cleaning (e.g., Python/Pandas), visual analysis (e.g., Power BI), and operation of marketing automation tools (e.g., HubSpot).

Practical Combat Ability: Be able to apply theories and technologies to solve real marketing problems, such as formulating precise marketing strategies, optimizing user operation plans, and evaluating marketing ROI.

4.2 Curriculum Reconstruction: Create A "Stepped" Digital and Intelligent Curriculum Group

Based on the Logic of "Theoretical Foundation - Technical Empowerment - Practical Sublimation", the Curriculum System Is Reconstructed as Shown in Table 1.

Table 1. Stepped Curriculum System for Marketing Majors

Curriculum Level	Course Name	Core Content	Teaching Method
Basic Theoretical Level	Principles of Marketing	4P theory, STP strategy, brand positioning	Case teaching + group discussion
Technical Tool Level	Marketing Big Data Analysis	Excel/Python data processing, SQL database query, Tableau visualization	Practical training + simulation projects
Practical Application Level	Marketing Planning Workshop	Introduction of real enterprise projects (e.g., product promotion plan design)	Project-based learning + enterprise mentor guidance
Interdisciplinary Integration	Artificial Intelligence and Precision Marketing	Application of machine learning algorithms (e.g., K-means clustering, logistic regression) in marketing	Joint teaching by school-enterprise dual teachers

The basic theoretical level retains core courses such as Marketing, Consumer Behavior, and Enterprise Strategic Management, and incorporates cases of digital and intelligent transformation. The technical tool level adds courses such as Marketing Big Data Analysis and Python Business Data Analysis to cultivate data processing and tool operation capabilities. The practical application level offers project-based courses such as Marketing Planning Training, New Media Technology Application, and New Media Operation, and introduces real enterprise marketing projects, such as formulating Douyin live-streaming e-commerce plans for local enterprises, to achieve "learning by doing". The interdisciplinary integration level develops cross-disciplinary courses such as "Big Data Marketing" and "Artificial Intelligence and Precision Marketing", and invites teachers from the School of Computer Science and enterprise mentors to teach jointly.

4.3 Model Innovation: Construct an "Online + Offline + Enterprise" Three-Scenario Integration Teaching Model

Online Smart Classroom: Data-Driven Theoretical Teaching: Use platforms such as Xue xi tong and Xi wo Classroom to build an online curriculum library, embed enterprise marketing data reports and cutting-edge industry videos. Through the closed loop of "theoretical explanation - data case analysis - online testing", learning efficiency is improved. For example, when explaining "market segmentation", introduce the user behavior data of Huawei AITO, and let students use Excel to conduct cluster analysis and write a segmentation report.

Offline Training Workshop: Build a "Digital and Intelligent Marketing Training Center", equipped with professional data analysis software such as SPSS, Python, and marketing automation platforms, and simulate the working environment of enterprise marketing departments. Training projects cover the entire process of "user profiling - marketing strategy formulation - advertising placement - effect evaluation". For example, students are grouped

to develop Xiao hong shu grass-planting plans for local small and medium-sized enterprises, execute them through real accounts, and analyze the data effects.

Enterprise Practical Base: Build "Smart Marketing Practical Bases" jointly with JD.com and local e-commerce enterprises, and implement the "Dual Tutor System". School teachers are responsible for theoretical guidance, and enterprise marketing directors serve as practical tutors, leading students to participate in real projects, such as the marketing planning of all series of Hongqi cars. Students complete data collection, competitor analysis, and plan implementation in the enterprise, and receive enterprise performance evaluations, realizing "training is practical combat".

4.4 School-Enterprise Collaboration: Establish A "Resource Sharing - Two-Way Empowerment" Mechanism

Jointly Build Curriculum Resources: Develop a collection of marketing cases of big data in the new economic era jointly with enterprises, collect cutting-edge industry cases, and jointly design training manuals for marketing data analysis, incorporating enterprise data processing standards and operation procedures. Enterprises and schools exchange teaching staff teams. Require enterprise executives from Huawei to regularly visit the school to give lectures on "Cutting-Edge Digital and Intelligent Marketing", share practical experience, and participate in the teaching of some courses. At the same time, the school selects teachers to take temporary posts in enterprises, participate in marketing project planning, and feed back to update teaching content.

Share Data Platforms: Introduce enterprise marketing databases in practical teaching, such as user behavior data from e-commerce platforms and public opinion data from social media, and build an integrated data platform for "teaching - scientific research - practice" to provide students with a real data environment for analysis and modeling.

5. Implementation Guarantee Measures

5.1 Build a "Dual-Qualified and Dual-Ability" Teaching Staff

Establish an "In-School Teacher Digital and Intelligent Ability Improvement Plan", regularly organize training on big data analysis and marketing technical tools, and require teachers to participate in enterprise practice at least once every three years. Recruit enterprise mentors from leading enterprises in the industry to undertake training courses and project guidance, forming a teaching staff team with full-time teachers as the main body, part-time teachers as the supplement, and a reasonable structure.

5.2 Build a "Technology + Scenario" Support Platform

Upgrade the school's training center, introduce cutting-edge equipment such as AI marketing simulation systems and virtual live-streaming training platforms, and build a highly simulated marketing work scenario. Cooperate with data service providers to obtain desensitized industry data, such as consumer data in the retail and fast-moving consumer goods fields, to provide data support for teaching and scientific research.

5.3 Innovate A Diversified Evaluation System

Construct a three-dimensional evaluation system of "knowledge + skills + practical combat". For theoretical courses, adopt the form of "process assessment + final exam", and for practical courses, mainly rely on "project results (such as marketing plans, data analysis reports, etc.) + enterprise mentor scores". At the same time, encourage students to actively participate in industry certifications, such as the "CMO Digital Marketing Certification" and the "Google Analytics Certificate", as a supplement to their capabilities, to enhance students' employment competitiveness.

6. Practical Results and Reflections

6.1 Preliminary Results

Since the marketing major of Hubei Business College implemented the Smart Learning Workshop Model in 2021, the quality of talent cultivation has been significantly improved. Students' data processing capabilities have been greatly enhanced. In the past three years, students have achieved good results in competitions such as the National College Students' Market Research and Analysis

Competition and the Hubei Marketing Planning Competition. The employment rate of graduates from this major has also increased significantly.

6.2 Future Prospects

Although the Smart Learning Workshop Model has achieved phased results, further exploration is still needed in the following aspects. First, strengthen the integration of "curriculum ideology and politics" and digital and intelligent marketing to cultivate students' data ethics awareness and social responsibility. At the same time, continuously introduce blockchain technology to achieve decentralized recording of the practical process and improve the objectivity of result evaluation. Finally, actively expand international cooperation, draw on models such as "Digital Marketing Workshops" of overseas universities, and enhance the internationalization level of talent cultivation.

7. Conclusion

From the perspective of digital intelligence, the "Integration of Theory and Practice" Smart Learning Workshop Model effectively solves the problem of the disconnection between theory and practice in marketing major teaching through goal reconstruction, curriculum innovation, scenario integration, and school-enterprise collaboration, providing a replicable path for applied talent cultivation. In the future, it is necessary to continuously keep up with the forefront of technology, dynamically adjust the training plan, and promote the in-depth integration of "teaching, learning, production, and research" to cultivate more compound marketing talents who "understand theory, are proficient in technology, and are good at practical combat" to meet the needs of the new economic era.

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