

Research on the Teaching Reform of Marketing Courses from the Perspective of Digital Intelligence

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Abstract: With the rapid development of digitalization and intelligentization (digital intelligence) technologies, the teaching reform of marketing courses in higher education faces new opportunities and challenges. Traditional teaching models, which are characterized by outdated content, weak practical teaching, and low student engagement, can no longer effectively meet the needs of society for cultivating marketing professionals in the new era. This study aims to explore the strategies for the teaching reform of marketing courses in higher education from the perspective of digital intelligence. By analyzing the application status and development trends of digital intelligence technology in the educational field, this research proposes strategies for updating teaching content, innovating teaching models, optimizing teaching methods, and reforming teaching evaluation mechanisms to construct a multidimensional and multi-level teaching reform system. Additionally, this study provides a reference for the implementation paths of teaching reform in higher education by combining pilot course reforms, university-enterprise cooperation, and practice-oriented teaching models. The research concludes that the application of digital intelligence can significantly improve teaching effectiveness, enhance students' practical skills and innovation capabilities, and lay a solid foundation for cultivating versatile talents who can adapt to the modern market environment.

1. Introduction

With the rapid development of digitalization and intelligentization technologies, the marketing industry and its associated talent cultivation models are undergoing profound transformations. As a key base for cultivating talent required by societal development, marketing courses in higher education urgently need to update their content, teaching models, and practical applications to adapt to the new era's demands for versatile and innovative marketing professionals. However, current marketing courses in higher education are plagued by issues such as outdated curriculum content, a disconnection between theory and practice, a single teaching model, and low student engagement, which limit the effectiveness of enhancing students' practical skills and innovation capabilities. Meanwhile, the application of digital intelligence technology in education is becoming increasingly widespread. By introducing technologies such as big data, artificial intelligence (AI), virtual reality

(VR), and augmented reality (AR), teaching content and methods can be enriched, and teaching models can be further innovated and optimized. Therefore, exploring how to organically integrate digital intelligence technology into marketing courses and promote the teaching reform of marketing courses in higher education has become a critical topic in current educational research. This study aims to provide a theoretical foundation and practical path for the teaching reform of marketing courses in higher education by deeply analyzing the current situation and proposing reform strategies from the perspective of digital intelligence, thereby helping higher education institutions to cultivate high-quality professionals who meet the needs of the modern market environment[1].

2. Theoretical Foundation of Teaching Reform for Marketing Courses from the Perspective of Digital Intelligence

2.1. Concept of Digital Intelligence and Its Application in Education

Digital intelligence refers to a new technology application model that integrates digitalization and intelligentization, based on information technology, artificial intelligence, and data analysis. Its core lies in using data as the driving factor and introducing intelligent algorithms and technical means to optimize and reconstruct traditional processes and models, thereby enhancing system automation, intelligence, and decision support capabilities. In recent years, the application of digital intelligence technology in the field of education has made significant progress. Through intelligent teaching platforms, personalized learning paths, intelligent recommendation systems, and virtual simulation, traditional teaching and learning methods have gradually been transformed. For example, intelligent learning platforms can analyze learning outcomes based on students' learning behavior data and provide personalized learning suggestions and resource recommendations, thereby effectively improving learning efficiency[2]. Virtual simulation technology can provide students with more vivid and specific learning scenarios, allowing abstract theoretical content to be expressed concretely through simulated experiments, thereby deepening students' understanding and application of knowledge. At the same time, the widespread application of big data analysis in education management enables educators to more accurately understand students' learning status and knowledge mastery, providing scientific support for curriculum content design and teaching strategy formulation. With these digital intelligence technologies, the educational field is gradually advancing towards "smart education," whose core goal is to construct a comprehensive teaching system that integrates student self-directed learning, teacher precision teaching, and effective allocation of educational resources through technical means. Therefore, with the assistance of digital intelligence technology, the teaching reform of marketing courses in higher education can not only achieve the iterative update of teaching content but also systematically innovate teaching models, teaching methods, and teaching evaluation systems, thereby effectively improving educational quality and students' learning outcomes[3].

2.2. Current Teaching Status and Problems of Marketing Courses

Currently, the teaching of marketing courses in higher education still predominantly relies on traditional classroom lectures, focusing on the delivery of classical theories and basic concepts, with a lack of in-depth analysis of cutting-edge marketing theories and real-world application scenarios. Specifically, the curriculum design and teaching content lag behind the rapidly developing marketing field, failing to reflect the application of emerging technologies such as big data, artificial intelligence, and digital marketing in marketing. Moreover, practical teaching is weak and limited to basic case studies and small-scale market research, unable to provide students with authentic,

complex market scenarios and practical operation opportunities, resulting in students' lack of readiness to address real-world challenges after graduation. In terms of teaching models, the traditional one-way lecturing method is still prevalent, leading to insufficient teacher-student interaction, low student motivation, and unsatisfactory classroom participation and learning outcomes. Additionally, the singularity of teaching methods results in a poor learning experience for students, as traditional teaching tools and methods can no longer meet the contemporary students' demand for innovation, interaction, and engagement. Furthermore, the teaching evaluation system is relatively simple, usually relying on final exams as the main assessment method, neglecting students' comprehensive performance and actual capability development throughout the course[4]. Such an evaluation mechanism not only fails to reflect students' learning achievements comprehensively but also, to some extent, stifles students' creativity and autonomous learning abilities. In summary, the current status of marketing courses in higher education is constrained by outdated content, weak practical components, a single teaching model, and an inadequate evaluation mechanism, all of which hinder the improvement of teaching quality and students' overall competency. Faced with these challenges, how to incorporate digital intelligence technology into the teaching reform of marketing courses, realize dynamic content updates, diverse teaching model innovations, comprehensive optimization of teaching methods, and multi-dimensional development of teaching evaluation has become an urgent issue to be addressed in higher education marketing education reform.

3. Teaching Reform Strategies for Marketing Courses from the Perspective of Digital Intelligence

3.1. Teaching Content Reform Strategy

Under the context of digital intelligence, the teaching content of marketing courses in higher education should keep pace with technological advancements and market changes by incorporating cutting-edge technologies and real-world application scenarios to build a forward-looking and practical curriculum system that meets the societal demand for innovative and versatile talents. First, teaching content should integrate emerging technologies such as big data analysis, artificial intelligence (AI), blockchain, and cloud computing into marketing applications. For instance, incorporating a big data analysis module can help students understand how to predict market demand, analyze consumer behavior, and develop market competition strategies based on big data techniques. Similarly, incorporating AI into the curriculum can guide students on how to use intelligent algorithms to optimize marketing decisions and conduct precision marketing campaigns. Additionally, courses related to digital marketing and e-commerce should be expanded to enable students to understand e-commerce platform operation models, online marketing strategies, and social media promotion methods, thereby enhancing their practical abilities in a digital marketing environment. Second, teaching content should emphasize the integration of theory and practice by introducing real-world business cases, industry data, and simulation experiments to stimulate students' interest and enhance their analytical and problem-solving skills. For example, by leveraging virtual reality (VR) and augmented reality (AR) technologies, students can design marketing strategies and execute plans within a simulated business environment, thereby improving their hands-on skills in real-world contexts. Lastly, the curriculum content should remain dynamically updated by regularly involving industry experts in curriculum development and incorporating the latest industry cases and technological trends to ensure that the content remains up-to-date and closely aligned with industry developments. Therefore, teaching content reform should not only focus on enriching course content from a technological perspective but also strengthen students' practical skills, ultimately creating a comprehensive marketing curriculum

system that supports students' future application and development in the workplace[5].

3.2. Teaching Model Reform Strategy

In the context of digital intelligence, the teaching model for marketing courses in higher education needs to break through the limitations of traditional one-way teaching and explore more diverse, interactive, and integrated teaching models to fully engage students and improve learning outcomes. First, a “blended learning” model should be adopted, combining traditional classroom teaching with online learning resources to create a complementary learning mode that integrates in-class and out-of-class, as well as online and offline learning. During classroom teaching, instructors can introduce interactive teaching tools through intelligent learning platforms, such as real-time Q&A, online quizzes, and discussion forums, to promote interaction and communication between teachers and students. For after-class learning, students can utilize Massive Open Online Courses (MOOCs), micro-courses, and other online resources for self-directed learning while tracking their progress and outcomes through platform data, thereby achieving personalized learning goals. Additionally, a “flipped classroom” model can be implemented to redistribute knowledge transmission and internalization activities[6]. Students are encouraged to learn basic concepts through videos and reading materials before class, and during class, the focus shifts to problem-solving, case studies, and project practices, helping students apply theoretical knowledge to real-world scenarios and deepening their understanding. Second, project-based learning and inquiry-based learning models should be integrated into teaching to create problem- and project-driven learning scenarios. By forming groups and using projects as carriers, students can design, plan, and execute marketing plans under the guidance of instructors, thereby enhancing their teamwork and project management skills. For example, projects such as “Marketing Strategy Competition” or “Enterprise Brand Promotion Planning” can be designed to allow students to analyze market data, develop marketing strategies, and present their solutions in a simulated business environment, thereby cultivating their comprehensive capabilities in addressing real-world problems. Furthermore, VR and AR technologies can be utilized to create immersive teaching environments, transforming abstract theoretical knowledge into intuitive visual scenarios. For instance, students can use a virtual enterprise simulation system to experience the entire process from product design and marketing to sales execution, gaining a deeper understanding of the application of marketing strategies. Finally, the teaching model should emphasize cross-disciplinary integration and university-enterprise collaboration. Marketing as a discipline involves multiple fields such as management, economics, and psychology. Instructors can design interdisciplinary courses, such as “Marketing and Psychology” or “Digital Marketing and Big Data Analysis,” to help students understand the essence of marketing and strategy formulation from different disciplinary perspectives. At the same time, by strengthening university-enterprise cooperation, enterprises can provide real-world projects and cases for students, and industry mentors can participate in teaching, while marketing experts can give seminars, providing students with direct opportunities to interact with industry professionals. This enables students to better combine classroom knowledge with practical experience, laying a solid foundation for their future careers. Therefore, the reform of the teaching model in the context of digital intelligence not only requires adopting various interactive and project-driven teaching methods but also integrating online and offline resources, cross-disciplinary perspectives, and university-enterprise collaboration to form a systematic and multi-dimensional teaching model that supports the cultivation of marketing professionals[7].

3.3. Teaching Methods and Technical Support Reform Strategy

From the perspective of digital intelligence, the teaching methods for marketing courses in higher education need to rely on modern information technology to achieve deep integration of teaching resources and technical tools, thereby enhancing the interactivity, engagement, and practicality of teaching and creating an intelligent teaching environment. First, intelligent teaching platforms should be actively introduced to provide comprehensive support for teachers and students. By integrating learning management systems (LMS), intelligent teaching assistants, and virtual experiment platforms, teachers can more conveniently conduct course design, manage courses, and track students' learning data. Intelligent teaching assistants can automatically generate personalized learning paths and suggestions based on students' learning conditions and provide teachers with real-time teaching data analysis and alert functions, helping teachers adjust teaching strategies and content in a timely manner to better meet students' learning needs. For example, teachers can utilize the data analysis functions on the intelligent teaching platform to understand each student's progress and weaknesses, and then conduct targeted teaching in the classroom to improve the effectiveness and specificity of instruction. Second, information technology should be fully utilized to innovate teaching interaction methods and increase classroom engagement. Real-time feedback platforms based on data analysis, such as Mentimeter and Kahoot, can be introduced to set up knowledge Q&A, instant quizzes, and group discussions during class, thereby enhancing student engagement and interaction. By collecting real-time responses, teachers can understand students' grasp of knowledge points and adjust teaching content accordingly[8]. Moreover, the application of VR and AR technologies can provide students with more vivid and immersive learning experiences. For instance, using VR technology, teachers can take students "into" virtual market environments to experience business operations and marketing strategy formulation processes, thereby enhancing their understanding and application of theoretical knowledge. With AR technology, students can deepen their memory and mastery of course knowledge points through interactive experiences and apply them to real-world scenarios, thus improving learning outcomes. Third, big data analysis and AI technology should be introduced to build an intelligent learning evaluation and teaching feedback system, achieving dynamic monitoring and scientific evaluation of teaching outcomes. By integrating student learning data on intelligent learning platforms, such as study duration, progress, and mastery of knowledge points, individualized learning profiles can be established to dynamically monitor learning effectiveness. AI technology can identify learning barriers and weaknesses in students' learning behaviors and automatically generate personalized learning suggestions and improvement plans. Additionally, intelligent teaching platforms can be used to conduct multidimensional evaluations of teaching outcomes, including classroom participation, project completion, cooperation ability, and innovation thinking, providing a scientific basis for improving teaching quality. Finally, the construction of a technical support system for teaching should be strengthened to enhance teachers' capabilities in digital intelligence teaching. Universities should regularly organize digital intelligence teaching skills training for teachers, such as using intelligent teaching platforms, data analysis and processing technologies, and VR technology applications, to help teachers master the latest teaching tools and techniques. Through internal teaching exchanges and seminars, successful cases and experiences in digital intelligence teaching can be shared, encouraging teachers to boldly try new technologies and methods in teaching, thereby achieving the organic integration of digital intelligence technology and teaching content. Therefore, the reform of teaching methods and technical support in the context of digital intelligence not only requires leveraging modern information technology to create an intelligent teaching environment but also actively exploring comprehensive reform strategies that integrate technical support system construction and teacher capacity enhancement to provide solid technical support for improving the

teaching quality of marketing courses in higher education.

3.4. Teaching Evaluation and Feedback Mechanism Reform Strategy

In the context of digital intelligence, the reform of teaching evaluation and feedback should enhance students' learning outcomes and abilities through a multidimensional, dynamic evaluation system. The shift from exam-based assessments to a more diversified framework is essential, incorporating regular performance, classroom participation, project work, case analysis, and teamwork. This approach offers a comprehensive evaluation of students' practical skills and innovative thinking. Data-driven evaluation using intelligent platforms and AI can track learning behaviors in real time, allowing teachers to identify issues and provide personalized feedback. Automated feedback systems can offer periodic progress reports, guiding students in adjusting their learning strategies and improving performance. Student self-evaluation and peer review should also be incorporated, encouraging reflection and collaboration. These methods foster critical thinking and teamwork by having students assess both their own and peers' contributions in group tasks. Finally, continuous evaluation and improvement mechanisms should be established to ensure teaching quality. Regular feedback from students and teachers can help refine the evaluation system, ensuring it remains effective and aligned with teaching goals. Overall, the reform should focus on creating an intelligent, responsive system that drives the continuous improvement of marketing course quality.

4. Practical Path for Teaching Reform of Marketing Courses in Higher Education

The practical path for the teaching reform of marketing courses in higher education should focus on the effective application of digital intelligence technologies, the deepening of university-enterprise cooperation, and comprehensive innovation in teaching models to achieve the organic integration of theory and practice, ultimately enhancing the quality of talent cultivation. First, in the early stages of teaching reform, selected courses should be piloted by introducing cutting-edge technologies such as big data analysis, artificial intelligence (AI), blockchain, and virtual reality (VR), gradually establishing demonstration courses that integrate digital intelligence. By applying intelligent learning platforms, virtual simulation platforms, and data analysis tools in these pilot courses, the effectiveness of the reform can be validated, and feedback can be collected to support future implementations across the entire program. For example, in courses like Market Research and Consumer Behavior Analysis, students can leverage big data and AI technologies to conduct data collection and analysis, thereby understanding how to optimize marketing strategies using technology, enhancing the practicality and applicability of the courses. Second, universities should actively establish long-term and stable university-enterprise partnerships with leading companies in the industry. Through the joint development of training bases, co-creation of university-enterprise collaborative courses, and inviting corporate mentors to participate in teaching, a practical teaching platform that integrates on-campus and off-campus resources can be built. Enterprises can regularly provide real-world marketing projects and case studies to universities and, under the guidance of practical mentors, help students apply classroom knowledge to real business scenarios, fostering students' hands-on abilities and innovation skills. At the same time, universities can organize students to participate in corporate internships and project competitions, further enhancing their professional competence and practical experience through in-depth interactions with industry experts. Additionally, universities should promote interdisciplinary integration, driving deep collaboration between marketing and related fields such as management, psychology, and information technology. Interdisciplinary courses like "Marketing and Big Data Applications" and "Consumer Behavior and Psychological Analysis" can help students understand marketing

theories and strategy formulation from multiple disciplinary perspectives, preparing them well for the complex and dynamic future market environment. Furthermore, innovation in teaching models should be combined with the optimization of teaching resources. Universities should fully integrate internal and external teaching resources, introduce online open courses (MOOCs), micro-courses, and blended teaching resource libraries to establish a diverse teaching resource system for shared learning and collaboration. By integrating these high-quality teaching resources, universities can provide students with richer learning materials and opportunities for self-directed learning, helping students build personalized learning paths and enhance their learning autonomy. Meanwhile, universities should encourage instructors to actively participate in the development of digital intelligence-based courses, improving their ability to innovate in teaching and apply new technologies. Regular digital intelligence teaching skill training and experience-sharing activities should be organized to guide teachers in boldly experimenting with new technologies and methods in their teaching, promoting comprehensive innovation in teaching models and methods. Lastly, universities should establish a scientific teaching effectiveness evaluation and feedback mechanism, regularly conducting systematic assessments of the implementation of digital intelligence teaching reforms, and making timely adjustments and optimizations based on the evaluation results. For instance, student learning outcome tracking, course satisfaction surveys, and teacher performance feedback can be used to understand the actual effectiveness of digital intelligence teaching reforms. Combined with expert opinions and teaching practice experiences, the reform path can be continuously refined. Therefore, the practical path for the teaching reform of marketing courses in higher education should be based on "pilot-first, university-enterprise cooperation, and interdisciplinary integration," using comprehensive and multi-level reform strategies and path designs to drive continuous innovation and development in marketing courses, thereby laying a solid foundation for cultivating marketing professionals with a forward-looking vision, innovative capability, and practical experience.

5. Conclusion

The teaching reform of marketing courses in higher education in the context of digital intelligence is an inevitable choice to enhance teaching quality and cultivate innovative and versatile talents. By introducing digital intelligence technologies such as big data, artificial intelligence, and virtual reality, the teaching reform can update curriculum content, innovate teaching models, optimize teaching methods, and establish diversified teaching evaluation and feedback mechanisms. This approach can effectively address existing issues in teaching, such as the disconnection between theory and practice and the limitations of a single teaching model. In terms of practical implementation paths, strategies such as pilot-first initiatives, university-enterprise cooperation, and interdisciplinary integration should be adopted to promote the gradual and broad implementation of the reform. In the future, as digital intelligence technologies continue to develop in the field of education, the teaching reform of marketing courses will further evolve towards intelligent, personalized, and practical approaches, providing stronger support for the cultivation of marketing professionals in higher education.

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