

Research on Practical Teaching of Interaction Design Course under the Background of Educational Informatization

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Abstract: In the context of educational informatization, this article takes the course "Interaction Design" as the research object, and deeply explores the impact of information technology on practical teaching and corresponding strategies. Research has found that educational informatization has expanded subject resources and learning opportunities, providing students with a wide and profound learning experience. The introduction of digital tools not only makes teaching more flexible, but also provides students with more practical operation opportunities to simulate real work scenarios. The precise personalized learning path design promotes the improvement of learning efficiency. In addition, this article focuses on the integration of design thinking and practical applications. Through interactive learning and virtual team projects on online learning platforms, students are encouraged to organically integrate design thinking into practice, cultivating more innovative and practical interaction design professionals. The article summarizes the opportunities and challenges brought by educational informatization, emphasizing that educators should continuously innovate teaching models in the era of rapid development of information technology, and promote the deepening and development of educational informatization in the field of interactive design.

Keywords: Education informatization; Interactive design and practical teaching

1. Introduction

With the continuous progress of technology, the application of information technology in the field of education has become increasingly widespread, and educational informatization has become one of the key factors in promoting teaching reform and improving teaching effectiveness. In this context, the field of interaction design has become more important as it focuses on user experience and interface design, directly affecting information transmission and learning outcomes. Educational informatization provides students with more possibilities and ways of learning. The traditional classroom teaching method is limited by time and space, and through the application of information technology, students can obtain learning resources at different times and places, achieving synchronous learning in different places. This transformation has a positive promoting effect on cultivating students' self-learning ability and information acquisition ability. As a professional course that focuses on user experience and interface design, the research on practical teaching of Interaction Design can better utilize educational informatization methods to enhance students' practical design skills. The demand for interaction design professionals in society is gradually increasing. With the rapid development of mobile internet, intelligent hardware and other technologies, users have increasingly high requirements for product experience and interface design. This puts higher demands on the abilities of interaction design professionals, requiring them to have more practical operational experience and innovative abilities. Therefore, the research on practical teaching of the course "Interaction Design" has important practical significance. By combining educational informatization methods, it can better cultivate students' practical design abilities and make them better adapt to the demand of society for interaction design professionals. Interaction design is an interdisciplinary field that involves knowledge from multiple disciplines such as psychology, ergonomics, and aesthetics. In traditional classroom teaching, it is difficult to comprehensively cover these knowledge points. However, through the means of educational informatization, teaching resources can be more flexibly organized, interdisciplinary content can be introduced, and students can have a more comprehensive understanding and application of interactive design knowledge. This not only helps to improve the comprehensive quality of students, but also helps to broaden their professional horizons and better adapt to the needs of future career development.

Therefore, this article aims to fully utilize the advantages of educational informatization, combined with the demand of society for interaction design professionals, to better promote the cultivation of students' practical operational abilities, meet the demand of society for high-level interaction design professionals, and promote the continuous innovation and development of interaction design teaching [1].

2. The Impact of Educational Informatization on Practical Teaching of Interaction Design Course

(1) Diversification of Interaction Design Resources

With the rapid development of educational informatization, the impact on the practical teaching of Interaction Design course is reflected in the diversification of interaction design resources. This change not only changes the way students learn, but also provides teachers with more innovative and flexible teaching methods. In this context, the resources involved in interactive design courses exhibit diversity, from traditional textbooks to modern virtual practice environments, providing students with a richer and more practical learning experience. Firstly, the promotion of educational informatization has led to a gradual shift in interactive design resources from paper-based textbooks to digitalization. Through online learning platforms, students can easily access the latest and most comprehensive interaction design information, and have more convenient learning channels. Digital textbooks not only save the production and logistics costs of paper textbooks, but can also be updated at any time, ensuring that the content learned by students always remains cutting-edge and practical. This transformation enables students to arrange their learning time more flexibly and gain a deeper understanding of the latest developments in the field of interaction design. Secondly, interactive design courses pay more attention to practical cultivation in the tide of educational informatization, simulating actual work scenarios by constructing virtual practice environments. Students can design and simulate practical projects through virtual laboratories, thereby enhancing their hands-on abilities. This diversified practical teaching resource provides students with a more authentic design experience and cultivates their ability to solve problems in practical work. At the same time, teachers can also provide timely feedback and guidance to promote the growth and development of students by monitoring their performance in the virtual practice environment in real time. In addition, the impact of educational informatization has also led to the multimedia and interdisciplinary characteristics of interactive design resources. The course introduces rich multimedia elements such as graphics, audio, and video, making the learning content more vivid and intuitive. Interaction design is no longer an isolated discipline, but is integrated with multiple disciplines such as computer science, psychology, and art, providing students with a more comprehensive knowledge perspective. This interdisciplinary and diversified resource enables students to better understand the essence of interaction design and better respond to increasingly complex and diverse design needs [2].

(2) The Precision of Interactive Design Teaching

In the era of educational informatization, the practical teaching of interactive design courses has ushered in the development of precision. This trend not only involves a more refined design of teaching content, but also includes a profound understanding of individual student differences and subject characteristics. Precision teaching not only improves the teaching quality of interactive design courses, but also provides students with a more personalized learning experience, further stimulating their learning interest and creativity. The precise interactive design teaching is reflected in the more detailed disassembly and design of teaching content. Through educational informatization tools, teachers can have a more comprehensive understanding of the subject knowledge structure, reasonably divide knowledge points, and make teaching content more systematic and organized. This precise design not only helps students better understand the course content, but also improves teaching effectiveness. The precise design of teaching content can ensure that students gradually establish a solid foundation of professional knowledge, laying a solid foundation for future practice. Precision teaching aims to better meet the individual needs of students. Each student has their own subject interests and learning styles, and precision teaching enables students to deepen their learning according to their own subject strengths and interests through personalized learning paths and resource push. Through data analysis and monitoring of learning situations, teachers can more accurately grasp the learning status of students, provide personalized teaching support for each student, and thus maximize their learning motivation and creative potential. In the context of educational informatization, the precision of interactive design teaching also lies in the more flexible use of diverse teaching methods. Teachers can choose the most suitable teaching methods based on the characteristics of the subject and the needs of students, including case analysis, practical operations, project driven, and other forms. This differentiated

teaching method not only meets the learning needs of different students, but also makes teaching more interesting and practical. Through real-time feedback during the teaching process, teachers can adjust their teaching strategies in a timely manner, maintaining the accuracy and effectiveness of teaching [3].

(3) Targeted cultivation of interaction design literacy

In the era of educational informatization, educators have shown a clear targeted impact on the practical teaching of Interaction Design, mainly reflected in the cultivation of interaction design literacy. This trend not only emphasizes the transmission of disciplinary knowledge, but also focuses on cultivating students' specific skills, creativity, and problem-solving abilities needed in practical design, in order to better adapt to the development of modern interaction design. Educational informatization provides a more precise transmission of subject knowledge for the cultivation of interactive design literacy. Through digital education platforms and online learning resources, teachers can convey core theories and knowledge of interaction design to students in a more flexible and targeted manner. This precise knowledge transfer ensures that students master basic concepts, principles, and methods, providing them with a solid theoretical foundation for further practice. The targeted cultivation of interaction design literacy lies in a greater emphasis on the cultivation of students' practical operational skills. Through educational informatization methods such as virtual laboratories and online design tools, students can engage in design practice in environments that simulate actual work scenarios. This not only helps students become familiar with the use of interaction design software and tools, but also cultivates their practical skills, improves their execution and creativity in practical projects. Educational informatization has made interactive design courses more focused on cultivating students' creative thinking and problem-solving abilities. Through online collaboration platforms, virtual team projects, and other means, students can participate in real projects and face practical design challenges. In this process, students need to apply their learned knowledge to solve specific problems, cultivate innovative thinking and teamwork skills, in order to better adapt to the complex and ever-changing interaction design work environment in the future. The cultivation of targeted interaction design literacy also emphasizes the cultivation of students' comprehensive abilities. In addition to professional knowledge and practical operational skills, the Interactive Design course under educational informatization focuses more on cultivating students' communication skills, teamwork skills, and attention to design ethics and user experience. This comprehensive training helps students better cope with various complex situations in practical work, thus becoming more competitive [4].

(4) Changes to the learning environment

The rise of educational informatization has profoundly changed the learning environment of interactive design course practical teaching, providing students with more open and diverse learning scenarios. This transformation is not only the introduction of digital tools, but also a subversion of traditional learning methods, allowing students to experience a more flexible, practical, and interactive learning environment during the learning process, thereby better adapting to the rapidly developing field of interactive design today. Educational informatization has brought innovation to the digital learning environment for interactive design courses. Students are no longer limited by traditional paper textbooks, but can access the latest subject information and learning materials anytime and anywhere through digital resources such as online learning platforms and digital libraries. This digital learning environment not only improves the timeliness of learning, but also provides students with broader and deeper subject knowledge, expanding their disciplinary perspectives. The promotion of educational informatization enables students to participate in virtual practice environments and simulate real work scenarios. Through online design tools, virtual laboratories, and other platforms, students can conduct practical design operations in a virtual environment, thereby better understanding and applying the knowledge they have learned. The introduction of this virtual practice environment not only compensates for the shortcomings of traditional classroom teaching, but also provides students with a more practical work experience and cultivates their practical operational abilities in practical projects. The development of educational informatization has made interactive design courses more focused on interactive and collaborative learning. Through online interactive platforms, virtual team projects, and other means, students can have more immediate and in-depth communication with classmates, teachers, and industry professionals. This interactive learning environment promotes cooperation and common growth among students, cultivates teamwork and communication skills, and better cultivates the social skills required by students in future practical work. The impact of educational informatization also makes the learning environment for students more personalized and flexible. Through the design of intelligent learning systems and personalized learning paths, students can customize learning plans that cater to individual differences based on their interests, subject needs, and learning progress. This personalized learning environment not only improves learning efficiency, but also stimulates students'

interest in learning, making the learning process more profound and quality [5].

3. Practical Teaching Strategies for the Course of Interaction Design under the Background of Educational Informatization

(1) Relying on informatization to reshape the relationship between deep teaching and learning

In the era of educational informatization, the strategy of interactive design course practical teaching is not only to digitize traditional teaching content, but also to rethink the relationship between teaching and learning with the support of information technology, in order to achieve the reshaping of deep teaching and learning experience. This change not only affects the teaching methods of teachers, but also provides students with a more personalized, flexible, and interactive learning environment. Information technology provides a digital foundation for reshaping the relationship between teaching and learning. Through online learning platforms, virtual laboratories, and other tools, teachers can design teaching in a digital environment, providing students with more intuitive and specific subject content. Through the acquisition of digital learning resources, students can not only learn anytime and anywhere, but also choose their own learning paths according to their own progress, promoting teaching that is more in line with student needs and achieving deeper teaching. Information technology provides more flexible and diverse teaching methods for deep teaching. By integrating interactive design tools and platforms, teachers can bring the design process into a digital environment and engage in real-time interaction and collaboration with students. This interactive teaching not only stimulates students' interest in learning, but also narrows the distance between teachers and students, promoting the occurrence of deep learning. Students can showcase their works on online platforms, receive timely feedback, and make teaching more targeted and personalized. In practical teaching, by integrating various design software and online collaboration platforms, students can participate in virtual practice environments, simulate real projects, and improve their practical operational abilities. This kind of deep practice is not only a simple application of knowledge, but also a deep cultivation of design thinking and problem-solving abilities. Students work together through online platforms to complete design tasks, promoting teamwork and cultivating innovative thinking, so that learning is no longer limited to the classroom, but truly integrated into practical work scenarios. Most importantly, information technology provides a mechanism for real-time feedback and teaching optimization, making the interaction between teaching and learning closer. By monitoring the learning process of students through intelligent teaching systems, teachers can better understand their subject needs and learning status, and adjust teaching strategies in a timely manner. Students can showcase their works through online platforms, receive timely evaluations and suggestions, and help them better understand and apply the knowledge they have learned [6].

(2) Improving the teaching quality of interactive design

In the context of informatization, the key to improving the quality of curriculum teaching lies in the full use of digital tools. Taking UI/UX design as an example, students can simulate real projects through interactive design software, which not only cultivates practical design skills but also enhances sensitivity to user experience. By displaying their works on online platforms, students receive real-time feedback from peers and teachers, promoting dynamic adjustment and optimization of learning. This digital teaching method not only enhances students' operational skills, but also makes the teaching process more vivid and interesting. The improvement of teaching quality in interactive design relies on the construction of virtual practice environments. Through virtual laboratories, students can participate in simulation design of real scenes, deepening their understanding of practical applications of interaction design. Taking online collaboration platforms as an example, students can form virtual teams to jointly complete design tasks and cultivate teamwork and communication skills. Through this virtual practice, students can better adapt to the complex and ever-changing work environment in the future, enhance their practical operation and problem-solving abilities.

In the context of educational informatization, teachers are no longer just knowledge transmitters, but also mentors who guide students to explore and innovate in virtual practice. Using a case study, it can be demonstrated that through online collaboration platforms, team members with students distributed in different regions can jointly design a cross regional user experience project. Teachers can provide real-time guidance through online meetings to encourage students to fully unleash their creativity, integrate different cultures and thinking, and enhance their comprehensive literacy. This type of cross regional cooperation case not only enriches students' design experience, but also enhances their abilities in teamwork and cross-cultural communication. To improve the teaching quality of interactive

design, it is necessary to strengthen the interactivity between teaching and learning. Through the use of intelligent teaching systems, teachers can have a more comprehensive understanding of students' subject needs, communicate with students in real-time through online platforms, and provide personalized guidance and suggestions. This personalized teaching interaction enables students to better understand knowledge, engage in more in-depth practice, and promote their development in the field of interaction design to be more comprehensive.

(3) The integration of design thinking and practical applications

The introduction of design thinking has brought new ways of thinking to interactive design teaching. Through online learning platforms, students can participate in design thinking courses, learn how to approach problems from the user's perspective, gain a deeper understanding, and propose innovative solutions. The cultivation of design thinking aims to stimulate students' creative potential. Through online case analysis and practical tasks, educators guide students to flexibly apply design thinking methods, gradually forming their ability to deeply understand and solve practical problems. The integration of practical applications emphasizes putting design thinking into practice. Taking a case study, students participate in a real enterprise user experience design project on an online collaboration platform. Through communication with enterprises, students need to turn insights and innovations from design thinking into practical design solutions, and carry out practical operations in a virtual practice environment. This practical application case not only enriches students' design experience, but also cultivates their practical operational abilities in team collaboration and practical projects. In the teaching process, through the diversified teaching resources of online platforms, teachers can introduce real cases, provide rich practical problem scenarios, and stimulate students' innovative thinking. For example, by analyzing real cases such as user feedback and competitor analysis, students can better understand the importance of interaction design in practical applications and improve their problem-solving abilities. Educators guide students to integrate theoretical knowledge into practical design by designing challenging and practical tasks, prompting them to think about the practical impact of design and user experience. The integration of design thinking and practical applications requires emphasis on feedback mechanisms for practical operations. Through real-time feedback from online platforms, teachers can timely understand students' performance in practice, guide their application in design thinking, and provide personalized suggestions. This feedback mechanism encourages students to better understand the correlation between design thinking and practical applications, forming a more profound and comprehensive learning experience.

4. Conclusion

This article delves into the impact of educational informatization on interactive design teaching and corresponding teaching strategies. Through the application of information technology in teaching, it has been found that it not only brings new possibilities to interactive design courses, but also provides a broader platform for cultivating students' innovation and practical operation abilities. Through the research in this article, we deeply understand the positive impact of educational informatization on practical teaching of interactive design courses. The introduction of digital tools provides students with a wider range of subject resources and learning opportunities, breaking the limitations of traditional learning in terms of time and space. Students can access the latest design theories, case studies, and practical experience through online platforms, greatly expanding the breadth and depth of their subject knowledge. At the same time, the application of virtual laboratories and online design tools provides students with richer practical operation opportunities, simulating real work scenarios, and promoting students to have a deeper understanding and application of the knowledge they have learned. Educational informatization has brought more flexible and diverse teaching strategies to interactive design courses. Through intelligent learning systems, teachers can have a more comprehensive understanding of students' subject needs and learning progress, and design personalized learning plans for each student. The design of this personalized learning path makes teaching more precise and improves learning efficiency. At the same time, the development of educational informatization has also prompted teachers to pay more attention to interactive and cooperative learning, and cultivate students' teamwork and communication skills through online interactive platforms and virtual team projects. This article emphasizes the importance of integrating design thinking with practical applications in interactive design teaching. Through the introduction of online learning platforms, students can learn design thinking more flexibly and integrate it into practical design, improving their practical operational abilities. The introduction of real cases and the operation of practical projects enable students to better understand the relationship between design thinking and practical applications, laying a foundation for cultivating more innovative and practical interaction design professionals.

Overall, educational informatization has brought new opportunities and challenges to the practical teaching of interactive design courses. This article conducts in-depth research on the application of information technology in interactive design teaching and proposes a series of feasible teaching strategies. However, it is also important to be aware that with the rapid development of information technology, educators need to constantly update their teaching concepts and methods, and explore innovative teaching models suitable for the interaction design profession. I hope that more researchers and educators can participate in the exploration of this field in the future, and jointly promote the deepening and development of educational informatization in interactive design teaching.

Acknowledgement

Fundings: Key Teaching and Research Project of Ningbo University, "Research on the Reform Practice of Student-centered Blended Teaching Mode in the Course of Interaction Design" (IYXXZD2023017).

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