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The Application of Information Technology in High School History Teaching under the Background of the Internet

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Abstract

Driven by the digital wave, the Internet model has penetrated all walks of life, and the field of education is no exception. Especially in high school education, the integration of "Internet+ education" has brought intuitive and multi-dimensional teaching means to the history classroom, which has become the key to promoting the reform of history teaching. With the rapid progress of technology, cost reduction provides the conditions for the application of classroom technology. Modern new media equipment such as projectors and intelligent whiteboards have become very common. If these tools can be introduced into high school history teaching, they will effectively break through the difficulties and bottlenecks in teaching. Based on this, this paper analyzes the application strategy of information technology in high school history teaching in the Internet background for reference.

Keywords

Internet
Information technology
High school history

1. Introduction

High school students are in a period of youth development. The limitation of the traditional education model lies in its monotonous boredom, making it difficult to stimulate students' deep interest in learning and subsequently affecting their motivation to learn. In the context of the Internet, history teachers have the opportunity to employ more diversified teaching methods to expand students' horizons and enhance the attractiveness and effectiveness of history lessons.

2. The disadvantages of current high school history teaching

2.1. Scarce teaching materials

The traditional history teaching method often presents the complex and objective knowledge points of history through the teacher's oral generalization. This abstract professional terminology poses a significant obstacle for students to understand. History teaching should not only enable students to grasp the basic meaning of knowledge points but also encourage them to delve deeply into the

underlying reasons. This requires students to engage with and learn from a large number of primary historical materials. However, given the broad scope of subjects for high school students, they rarely have the opportunity to delve into relevant historical materials. The introduction of research-based learning assists students in gaining a deeper understanding of historical challenges, but there are some difficulties in implementing this model within the current teaching system. In a survey on the effectiveness of history teaching, 73% of students could not even identify the so-called historical challenges directly. Although all history teachers emphasize these knowledge points in class, primarily through oral prompts and textbook content, the survey results indicate that existing teaching methods fail to achieve the expected teaching effectiveness due to the mundane content [1-3].

2.2. Outdated teaching methods

Faced with the stringent requirements of college entrance examinations, teachers often feel pressured to ensure that students achieve satisfactory scores, leading them to focus on rote memorization and testing students' memory. In such an educational environment, high school students' history learning is often confined to the scope of textbooks, with the primary goal being to navigate various examinations, which somewhat diminishes the humanistic educational value of history teaching. Dense professional knowledge points make it challenging for students to deeply comprehend and master real historical challenges, and traditional history teaching methods struggle to balance improving efficiency with meeting curriculum standards [4,5].

3. The application strategy of information technology in high school history teaching under the background of the Internet

3.1. Utilizing micro-class for pre-class preview

As an innovative digital learning tool, micro-classes offer a convenient way to refine and process online learning resources. Teachers utilize software such as PPT and Flash to create engaging micro-lesson videos, facilitating effective interaction and feedback with students before or after class. When implementing micro-classes, the content must remain closely linked to classroom teaching to ensure its relevance. In the realm of history, a subject rich in knowledge and extensive in scope, history teachers often face the challenge of students' learning pressure and course workload. Integrating micro-lessons into pre-class preparation enhances students' analytical and generalization abilities. For instance, when teaching "Athens City-State Democracy," teachers need to first organize the teaching material's structure and identify key points for the unit and lesson. This unit not only elucidates the evolution of political systems in ancient Greece and Rome but also delves into the origins of modern Western politics and law, serving as a cornerstone in the study of world history [6-8]. Employing screen recording technology, teachers can integrate key knowledge points into videos (as illustrated in **Figure 1**) and guide students to independent study through educational apps. Should students encounter difficulties, they can seek timely assistance from teachers or engage in discussions within class groups. This interactive process enables teachers to collect feedback during the preview stage, clarifying students' grasp and identifying

Figure 1. Screenshot of the micro-class video

topics requiring in-depth explanation in class. This teaching approach optimizes classroom strategies, fosters students' historical dialectical thinking, and aids in achieving the core literacy goals of historical disciplines.

3.2. Leveraging various new media for teaching implementation

The discipline of history possesses its unique characteristics, and the advent of "Internet+" offers a plethora of material resources for displaying historical materials. For instance, when teaching the theme of "The Opium War," the classroom model shifts from traditional teacher-led instruction to a facilitative role for teachers. Learning processes and their design are entirely based on students' self-feedback, significantly enhancing teaching efficiency. In this course, a myriad of historical texts and cultural artifacts necessitate a three-dimensional display. Traditional teaching often relies on pictures and video-visual materials to visualize historical content, but it frequently falls short of fully evoking students' empathetic reactions and emotional experiences. In the context of "Internet+," teachers can utilize online museums to present the latest archaeological findings (as depicted in **Figure 2**). With advanced VR technology and detailed voiceovers, online museums can vividly reproduce historical scenes, providing immersive historical backgrounds and intuitive teaching support for key and challenging aspects of history teaching [9-12].
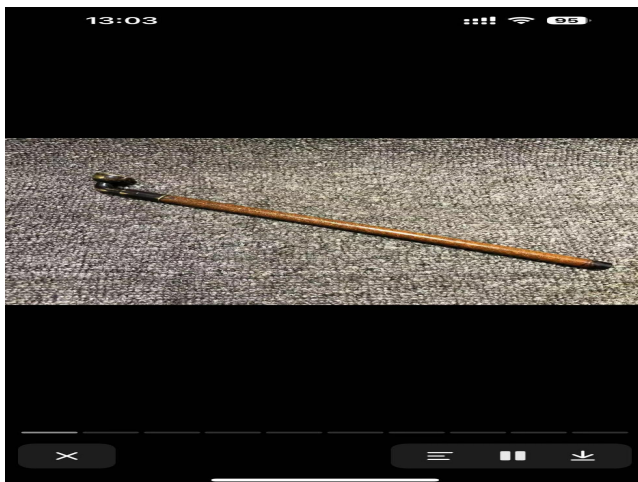

Figure 2. The rhinoceros skin lacquer cigarette rod in the Qing Dynasty

3.3. Utilizing engaging PowerPoint presentations to enhance history teaching quality

Creating PowerPoint (PPT) courseware has become a prevalent teaching method today. Teachers can craft refined PPT presentations tailored to specific history teaching content, utilizing these materials to support teaching, stimulate students' interest in learning, focus their attention, and guide them along a clear thinking path, thus making knowledge reception more organized. While viewing PPT presentations, students are exposed to various elements of the Internet era, including videos, animations, images, text materials, and various links, which supplement the study of historical knowledge and effectively broaden students' knowledge horizons, enabling them to further comprehend and master historical concepts. For instance, in a lesson on "The First Industrial Revolution," teachers can begin with animated comparative images showcasing significant changes before and after the Industrial Revolution, such as comparing manual workshops to steam engine factories, to pique students' curiosity. Through simulation scenarios like "Living in the Industrial Revolution," students can engage in decision-making via multiple-choice questions to enhance their experiential learning. Dynamic timelines can be utilized to highlight important events of the Industrial Revolution, such as Watt's steam engine improvements and the inauguration of the first railway, each event accompanied by relevant images or short videos. By incorporating click interactions, students can explore inventions or historical figures of interest, such as clicking on Watt's portrait to access his biography and an animated explanation of steam engine functionality. Moreover, the PPT can pose questions, such as "How does the Industrial Revolution impact modern technology?" and allocate blank pages for student contemplation. Finally, the PPT can summarize key classroom points, such as the significance and impact of the Industrial Revolution and key technological innovations, elucidating its enduring influence on the future [13-16].

3.4. Leveraging information technology to facilitate teacher-student interaction

In the digital age, information technology has infused new vitality into high school history teaching, particularly in

fostering interaction between teachers and students. For instance, in a lesson on "Exploring New Routes," teachers can employ multimedia tools to showcase dynamic maps of historical events, with animation effects transporting students back to the era of intrepid explorers venturing into the unknown world. Such vivid presentations not only enrich students' spatial and temporal imagination but also lay a robust foundation for subsequent exploration activities. Additionally, teachers can guide students to utilize online resources such as databases and electronic libraries to delve deeply into relevant knowledge of the "new route." Students can access adventure records, logs, charts from different periods, and even historians' interpretations of the significance of the "new route." This inquiry-based approach not only hones students' information-gathering skills but also cultivates their ability to analyze historical events from multiple perspectives. Following the lesson, teachers can utilize online platforms to conduct seminars, where students have the opportunity to express their understanding and viewpoints on historical events through forums or instant messaging tools. In this process, students can freely articulate their thoughts in a virtual network space, and real-time feedback from teachers effectively stimulates deep thinking. This online interaction not only fosters communication between teachers and students but also enhances students' understanding of the subject matter [4,17,18].

4. Conclusion

As a nation steeped in profound historical and cultural legacies, Chinese students ought to delve deeply into the study of history, grasp the thoughts and cultural nuances of historical figures, and continually enhance their historical literacy to meet the teaching demands of the new era. In history teaching, educators should prioritize the utilization of Internet resources to enrich classroom content, encourage students to explore network resources for independent learning, bolster their command of historical knowledge and passion for learning, and nurture their critical thinking and self-directed learning skills, thereby rendering history education more engaging and captivating. Embracing the aforementioned teaching strategies will significantly enhance the quality of education and align with the educational objectives set forth by the new curriculum standards.

Disclosure statement

The author declares no conflict of interest.

References

[1] Jing Y, 2015, The Disadvantages and Solutions of High School History Teaching. New Course (Second Half of the Month), 2015(1): 179. https://doi.org/10.3969/j.issn.1673-2162(x).2015.01.335

[2] Han J, 2016, Explore the Current Situation and Development Strategies of High School History Teaching from the Perspective of Life-Oriented Teaching. Journal of Kunming Cadre Academy for Nationalities, 2016(3): 2.

[3] Zhang C, 2017, How does Junior High School History Teaching Serve Senior High School History Teaching? Middle School Politics, History, and Land: Teaching Guidance, 2017(3): 3.

[4] Luo R, 2021, On the Application of Information Technology in High School Biology Teaching under the Background of "Internet +". Educational Management, 2021(6): 1099. https://doi.org/10.12255/j.issn.1672-6677.2021.06.1034

[5] Gao X, 2021, Current Problems and Countermeasures in High School History Teaching. Gansu Education, 2021(1): 148–149.

[6] Meng X, 2016, In the Context of Information Technology. Journal of Suzhou Education College, 19(2): 2.

[7] Li Y, 2014, On the Application of Information Technology in History Teaching. Curriculum Education Research, 2014(1): 55–56. https://doi.org/10.3969/j.issn.2095-3089.2014.01.048.

[8] Guo S, 2015, Research on High School History Teaching Strategies in the Information Technology Environment. Science, Education and Culture, 2015(1): 128–129. https://doi.org/10.3969/j.issn.1672-7894.2015.01.059

[9] Wang J, 2020, Analysis of the Application of Multimedia Technology in High School History Teaching under the "Internet+" Background. New Education Era Electronic Magazine (Teacher Edition), 2020(35): 92. https://doi.org/10.12218/j.issn.2095-4743.2020.35.092

[10] Chen F, 2017, Optimizing High School History Teaching Using Modern Information Technology. Primary and Secondary School Electronic Education (Second Half of the Month), 2017(12).

[11] Yang B, 2016, Research on the Teaching Theory and Practice of High School History Flipped Classroom Based on OER, thesis, Jiangxi Normal University, https://doi.org/10.7666/d.D01020521.

[12] Chen H, 2017, Research on High School History Teaching Strategies in the Information Technology Environment. Exam Weekly, 2017(46): 1.

[13] Wu R, 2011, The Research on Strategy for Improving the Teaching Quality of University by Using the Teaching Media of PPT, thesis, Northeastern Normal University.

[14] Li A, 2014, Application of Fine Processing Strategy in Middle School History Teaching. Brand Name, 2014(2): 1.

[15] Min L, 2016, Design and Application of High School History Micro Course, thesis, Henan University. https://doi.org/10.7666/d.D01052153.

[16] Zhu H, 2020, Research on the Development and Utilization of Network Curriculum Resources in Middle School History Teaching, thesis, Shandong Normal University.

[17] Shi R, 2020, The Application of Information Technology in High School Mathematics Teaching under the Background of "Internet+". Xuekuen, 2020(25): 2.

[18] Zhuang W, 2020, On the Application of Information Technology in High School Biology Teaching under the Background of "Internet+". China New Communications, 22(24): 173–174.