

Research on the application of image historical materials in high school history teaching

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ABSTRACT

History is a comprehensive subject. If students want to have a comprehensive understanding of history, they should explore a variety of curriculum resources. With the characteristics of intuitiveness, timeliness and evidential, image historical materials meet the needs of students for diversified historical resources, and increasingly attract the attention of middle school history teachers.

KEYWORDS

Image historical materials; History teaching in senior high school; application strategy

1 Introduction

Image historical materials are mainly divided into static image materials and dynamic image materials in terms of presentation format, including various forms such as paintings, photographs, maps, and footage. Since the 1960s, some historians have realized the importance of pictorial historical materials. In 1964, the famous media scholar McLuhan declared "The iconic age is upon us" in *Understanding Media*^[1]. It is evident that some scholars of the previous century began to explore the intrinsic connection between image historical materials and history, especially emphasizing that image historical materials play an irreplaceable role in the interpretation of history, a role that written historical materials cannot substitute. They clearly pointed out the historical value of image materials. Image historical materials should not be silent witnesses of history; rather, they should be remembered and utilized by historians to demonstrate their valuable, silent testimony to history.

2 The theoretical basis for applying image historical materials in high school history teaching

2.1 Theoretical basis of educational psychology

2.1.1 Constructivist Learning Theory

Constructivist learning theory emerged in the 1990s, with a theoretical foundation laid by psychologists such as Piaget and Vygotsky. There are four important concepts in constructivist theory: schema, assimilation, accommodation, and equilibrium. Among these, the concept of schema is particularly important. A schema refers to an individual's perceptual understanding and way of thinking about the world, and it can also be seen as a framework or organizational structure of mental activity^[2]. Constructivist learning theory holds that learning is the process of constructing internal mental representations. Learners do not simply transfer knowledge from the outside world into their memory; rather, they acquire and construct new knowledge through interaction with the external world, based on their existing experiences^[3]. Learning is constructed and completed in the process of active and social interaction, which is "to elaborate and construct reality on the basis of one's own experience and cognition", or to "explain reality"^[4]. Image historical materials have the characteristic of being vivid and intuitive, which makes them more stimulating than text. They can effectively engage students' interest in learning, spark independent thinking, imagination, and insight, thereby providing richer emotional experiences and promoting further "self-construction" of knowledge. Teachers should be the facilitators of students in constructing meaning. In history learning, students tend to judge the past using their current cognition and values, often overlooking the discrepancies between the present and the past, which prevents a true understanding of history. However, image historical materials such as artifacts, sites, and inscriptions, with their visual nature of "history," can restore historical scenes and help students view past events and figures from a historical perspective. By encouraging students to engage in perspective-taking, these materials guide them to experience and understand, leading to a deeper understanding of history.

2.1.2 Knowledge Visualization

The term "visualization" originally means "something that can be seen and clearly presented." As the name suggests, it

refers to something vivid, intuitive, and visible. In 2004, M.J.Eppler and R.A.Burkard proposed the theory of knowledge visualization. This theory focuses on the role of visual representations in enhancing knowledge transfer and innovation between two or more people. In the article Knowledge Visualization, they argue that "Generally speaking, the field of knowledge visualization examines the use of visual representations to improve the creation and transfer of knowledge between at least two people. Knowledge visualization thus designates all graphic means that can be used to construct and convey complex insights."^[5] Learning history is a process of acquiring knowledge based on existing experiences, involving both the processing of textual information and the extraction and integration of visual information. The learning effect is enhanced when multiple senses work together. Image historical materials use visual representation to present and convey historical information. By analyzing and interpreting these materials, students can externalize implicit knowledge, make explicit knowledge more logical, and visualize their thinking during the process of learning historical knowledge. This creates a resonance between knowledge and thinking, thus fostering their historical thinking abilities.

2.2 The characteristics of image historical materials

The increasing importance of image historical materials in high school history teaching is due to their practical significance. They not only add interest to the classroom and stimulate students' enthusiasm for learning history, but also compensate for the limitations of textual historical materials. Image historical materials have the following main characteristics: Intuitiveness is a distinctive feature of image historical materials. Whether static or dynamic, complex or abstract, or whether depicting historical figures or presenting diverse historical perspectives, the appropriate and proper use of image historical materials is like a vibrant and colorful painting, providing a strong visual impact. It is also like an image covered by a hazy filter, inviting viewers to look deeper through the lens. Compared to textual materials, it is less rigid and mechanical, and more fluid and empathetic. To some extent, it is much more effective than lengthy and profound written narratives, especially under the current trend of new curriculum reforms. Therefore, if image historical materials are used properly in high school history teaching, they can greatly enhance the effectiveness of our teaching. Image historical materials have a sense of the times. While history is in the past, historical images provide a true representation of specific moments involving historical figures or events. They capture not only appearances but also the deeper historical context embedded within that era. As such, image historical materials play a crucial role in helping students understand historical periods, historical patterns, and the themes of their times. They effectively cultivate students' sense of time and space, and enhance their ability to interpret history through images. The evidentiary characteristic of image historical materials lies in the fact that historical facts remain unaffected by anyone's subjective will; they are simply facts and exist objectively. When textual materials are lacking or deviate from history, image historical materials serve as the best supplementary source. The British historian Peter Burke once said, "It is at this level that images offer useful – indeed, indispensable – evidence for cultural historians."^[6]

3 The value of applying image historical materials in high school history teaching

From a psychological perspective, high school students are at a critical stage in the development of logical thinking. One of the main tasks of high school history education is to cultivate students' correct logical thinking and dialectical thinking abilities. For history teachers, vivid and intuitive image-based historical materials serve as an effective tool. Compared to the singular, complicated, and mechanical nature of textual materials, image historical sources, with their rich variety and strong visual impact, are more likely to capture students' attention and encourage them to actively observe the images and extract information. Therefore, the use of image-based historical materials aligns well with the cognitive characteristics of high school students. As for image historical materials themselves, they are a vast resource beyond textual materials. Sometimes, they carry infinite historical significance and can provide more information for our comprehensive understanding and perception of history, allowing us to delve into the deep traces of history through the space and time within these images.

4 Analysis of the Current Application and Existing Issues of Image Historical Materials in High School History Education

4.1 Interview Background

The interview subjects for this study are 15 history teachers from Chongqing, who come from different schools and vary in terms of the classes they teach, age, years of teaching experience, and educational background. Among them, there are 6 male teachers and 9 female teachers. The group includes 8 teachers from the first year of high school, 3 from the second year, and 4 from the third year. Nine teachers are from public schools, and 6 are from private schools. To ensure

a representative sample, the teachers selected have varying years of teaching experience. Specifically, there are 4 teachers with 1-5 years of experience, 5 teachers with 5-10 years of experience, 3 teachers with 10-15 years of experience, and 3 teachers with more than 15 years of experience. The interview consisted of six questions:

- a. Do you consider image historical materials to be an essential teaching resource in a history lesson?
- b. What sources do you typically use for image historical materials in your classroom? How many image materials do you use in one lesson, and what type of images do you mainly use?
- c. Do you consciously guide students to independently interpret image historical materials?
- d. How do you assess your students' ability to interpret and analyze image historical materials?
- e. In which teaching activities do you most frequently use image historical materials, and what is the intended outcome of using them?
- f. Do you think the use of image historical materials has achieved the expected teaching outcomes? If not, what do you think are the shortcomings?

The feedback from these teachers will be analyzed to identify the issues faced by educators in the application of historical images.

4.2 Interview Results

For question a, almost every teacher believes that historical images are an important resource for learning history. Most new teachers use historical images frequently in their classrooms. They believe that relying solely on verbal explanations in history lessons can feel monotonous, and incorporating historical images can make the classroom atmosphere more lively. However, nine teachers mentioned that they do not use historical images in every lesson. One professor noted that because they are familiar with the content being taught, they often lead students in reviewing key points. Other teachers also mentioned that high school students have limited class time and heavy workloads. In such a constrained timeframe, if a lesson covers a lot of material, they might skip using historical images.

For question b, the number of historical images used in a lesson ranges from 3 to 10. Regarding the selection of historical images, almost all teachers use images from the textbook, and these images are the most commonly used type in the classroom. The most frequently used images include historical portraits, historical maps, and images of cultural relics, while historical charts and cartoon-style historical images are used less often. However, most teachers stated that being able to effectively use textbook images is sufficient to meet teaching objectives. Four teachers mentioned that they do not limit their selection to textbook images; if they cannot find the desired images in the textbook, they will search through libraries or online resources. However, due to limited personal ability and lack of teaching experience, they sometimes struggle to assess the true value and authenticity of historical images, which can lead to the use of low-quality images or even misleading content downloaded from the internet.

For question c, 11 teachers indicated that they generally do not guide students in independently interpreting historical images during class. Most of the time, they directly explain the images to students. The remaining teachers encourage students to observe the images and answer questions in class, but the overall effect is not very satisfactory.

For question d, all teachers agreed that their students' ability to interpret and analyze historical images is weak and requires further improvement.

For question e, teachers reported using historical images more frequently in the introductory and detailed explanation stages of a lesson. During the introduction, teachers first display suitable historical images, such as textbook images, maps, historical cartoons, and multimedia history videos, to spark students' interest. The teacher then links these images to the content of the lesson to introduce the new topic. In the detailed explanation stage, teachers present historical images at appropriate times, describe them, and help students understand the related content by combining the images with the teacher's explanations, thereby reinforcing the memory of specific knowledge points.

For question f, all 15 teachers believed that the application of historical images did not achieve the desired effect. The reasons they provided included the fact that current history classrooms still focus primarily on teacher-led explanations, with students being passive learners who tend to accept the teacher's explanations rather than actively engaging in independent thinking and exploration. This results in students being unable to improve their skills in various areas through the use of historical images. Furthermore, the impact of exam-oriented education and limited class time are significant factors preventing historical images from having the desired impact.

4.3 Analysis of Issues in the Application of Historical Image Materials

4.3.1 Single Application Link

The use of historical image materials in teaching should not be limited; when applied appropriately, they can play a role in every stage of the classroom. Generally, a complete history lesson consists of four main stages: introduction, course

explanation, transition of teaching content, and summary. It is important to note that these four stages are general, as each lesson may differ based on the content, teaching objectives, and learning goals, with varying structures. According to teaching theory, Ye Xiaobing stated, "The framework of the teaching process is not monolithic or rigid but diversified and fluid."^[7] Therefore, the application of historical image materials is dependent on the lesson's content and teaching objectives, meaning that not all stages of every lesson will incorporate image materials.

4.3.2 Lack of Scientific Interpretation of Image Materials

In daily teaching, some history teachers use historical image materials to introduce or support related historical content, verifying it through textbook texts and images. This aims to help students understand abstract historical content vividly, deepening their understanding of historical events. However, sometimes teachers do not rigorously review the historical images or videos they choose, focusing instead on diversifying classroom teaching. As a result, teachers may play historical videos without scientific explanation, inadvertently transferring historical inaccuracies from films to students' understanding, causing students to confuse personal interpretations with historical facts and leading to misunderstandings that deviate from objective historical development.

4.3.3 Failure to Explore the Implicit Historical Information in Image Materials

In secondary school history teaching, students commonly encounter textual and image content presented in textbooks or by teachers. Due to their visual nature, these materials help students better grasp key historical concepts—explicit knowledge in history education. Teachers typically use historical image materials to create historical contexts or validate historical events. However, teachers often only guide students to understand the textbook images or focus on asking about obvious, typical details in the images. This leads students to observe images and repeat historical content without delving deeper. Many images contain rich, implicit historical information that can be uncovered through the background of the creator, the author, etc. Given students' insufficient historical literacy and varying cognitive abilities, it is difficult for them to extract deeper historical insights from images, which impacts the effectiveness of history teaching. Teachers need to leverage their professional skills to uncover the hidden information behind image materials, expanding students' knowledge.

4.3.4 Inability to Form a Complete Knowledge Chain Between Image Materials

The use of historical image materials in teaching compensates for the dryness and abstraction of textbook content, bringing historical events vividly before students as an important supplementary tool in history education. The vivid nature of images helps students quickly identify historical information, stimulating their interest in history and making it easier to summarize historical content, trace historical timelines, and strengthen understanding. When using image materials, teachers should not only focus on capturing students' attention and stimulating their learning atmosphere but also ensure that the selected images align with the lesson's theme. The images should be logically connected, and their use should stimulate problem-based learning.

4.3.5 Failure to Encourage Students' Critical Thinking on Historical Issues

In the classroom, teachers often use relevant historical images to deliver effective historical information. However, some teachers focus solely on explaining the images themselves without considering the students' reactions or fostering interaction. This leads to a one-way, didactic teaching approach that does not encourage students to actively think about the historical issues presented in the images.

5 Summarize the application principles of image historical materials in high school history class

In terms of addressing the aforementioned issues, the author has extensively read relevant literature, observed exemplary public class cases, and participated in high school internships and history teaching competitions. Through these practical experiences, the following application principles have been summarized.

5.1 Scientificity

The primary principle for selecting historical image materials in history teaching is scientificity. As we know, history is a science, and historical materials are an important source for acquiring historical knowledge. The fundamental teaching goal of the history subject is to learn how to "seek the truth." What does the scientificity of historical image materials

mean? It means that the materials must be authentic, reliable, and accurate. "High school students have limited discernment abilities and a strong tendency to trust their teachers, so the content presented by teachers in the classroom must be supported by documentary evidence, historically verifiable, and credible." [8]. Therefore, in teaching, the selection of historical materials must undergo rigorous screening to ensure their authenticity. It is best not to subjectively assume the authenticity of any historical material until its source has been thoroughly researched, in order to avoid potential negative impacts. Teachers should learn to obtain image materials through proper channels, such as using various standard textbooks, professional historical works, academic historical literature, and past national history exam papers. This ensures a higher level of authenticity for the images.

All history occurs within a specific time and space, as Feuerbach said, "Space and time are the forms of existence for all entities. Only existence within space and time is real existence." [9]. When selecting historical image materials, one must not ignore the background in which the materials were created. Understanding and explaining past events from the perspectives of time progression and spatial scope allows us to observe historical continuity and change, as well as make objective evaluations and understanding. Due to the diverse and rich types of historical image materials, there may be untruthful elements within them. Therefore, when identifying historical image materials, it is necessary not only to assess the authenticity of the historical information they provide but also to verify the provider, the creation period, and the purpose of the creation. In other words, teachers can also apply reverse thinking in teaching by intentionally displaying erroneous images, allowing students to use their existing knowledge to judge the authenticity. For example, the following image.

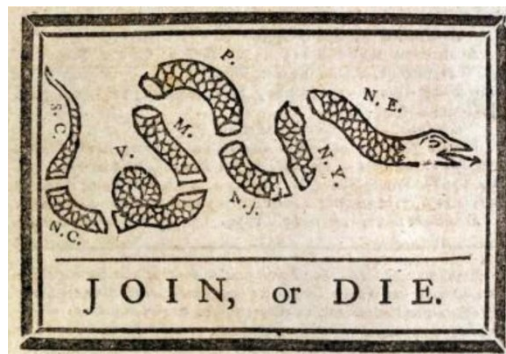


Figure 1 Benjamin Franklin, JOIN or DIE, 1754

In some public lessons and teaching designs that the author saw online, some teachers used Benjamin Franklin's engraving "JOIN or DIE" in their explanation of the American Revolutionary War, believing that the engraving reflected North America's desire for the thirteen colonies to unite and free themselves from British colonial rule. However, by consulting relevant materials, the author learned that this engraving was created in 1754. At that time, Franklin was a representative of Pennsylvania. The purpose of this engraving can be understood through the North American Colonial Representatives' Meeting, where Franklin proposed the Albany Plan of Union: "I determined to try what might be done by a voluntary association of the people ... in which I stated our defenceless situation in strong lights, with the necessity of union and discipline for our defense, and promis'd to propose in a few days an association, to be generally signed for that purpose." [10]. It shows that Franklin's plan was aimed at uniting the powerful and valuable colonies under the leadership of the British king to collectively defend against the French and the Native Americans. The call for North America to unite in order to break free from British colonial rule occurred during the Revolutionary War period. The reason why some teachers mistakenly use this engraving in their teaching is that they fail to recognize the image from the perspective of time and space. As a result, they do not understand the author, the creation time, the purpose of the engraving, or the historical context behind its creation.

5.2 Purposefulness

History teaching should be goal-oriented, and the use of historical images should align closely with teaching objectives. The application of historical images should not focus solely on form while neglecting content; instead, it should be directly connected to the historical knowledge being taught and serve the purpose of both the lesson and the students' development. Therefore, teachers must clarify their teaching objectives before using historical images, specifically what historical information they want students to gain and what teaching outcomes they aim to achieve. In history classes, the use of historical images should highlight key points, address difficult concepts, and integrate the explanation of knowledge with the interpretation of the images, blending them into the lesson content. Moreover, teachers must be selective and focus on key historical images that are crucial for teaching the main topics, helping students gain a deeper understanding of related historical events and phenomena. For less important content, teachers

should adjust based on the actual teaching situation and class time.

5.3 Inquisitiveness

Using visual historical materials to support history teaching is not only about utilizing their visual appeal to capture students' attention and interest but also about fostering their historical literacy. The visual nature of historical images is not merely for making the class more vivid or interesting; it serves the purpose of enhancing classroom teaching and developing students' historical thinking abilities. Therefore, when selecting visual materials, teachers should choose those that can engage students to actively observe, stimulate their thinking, and promote their skills development, thus extracting more practical value in class activities. British educator Wood suggests that "Using archival materials without imagination and preparation is more lacking in creativity than using textbooks and dictation books without imagination and preparation" ^[11]. It's important to note that not all visual materials are conducive to stimulating students' thinking. This means teachers must be discerning in their selection. Even if they design questions about the image, it will not yield good results if the material itself lacks inherent teaching value. Therefore, teachers should continuously improve their ability to select and evaluate historical images to find the most suitable materials for their classes. Additionally, teachers should not only focus on the images themselves but also engage in deeper analysis and exploration, subtly teaching students how to extract information through the process of analyzing the images.

5.4 Typicality

Mr. Zhao Henglie once said: "When collecting historical materials, one should exhaustively gather all available resources; when reconstructing historical images, one should select typical examples and highlight their features." ^[12] While visual historical materials are certainly helpful for teaching, there are many types and a vast quantity of such materials, and the methods for selecting them are equally diverse. Faced with an overwhelming amount of visual historical materials, teachers, in addition to adhering to the principles of scientificity and inspiration, must also follow the principle of "broad knowledge and good selection." Teachers should choose typical materials that can clearly reflect the teaching tasks, improve classroom efficiency, and fully engage students' interest, encouraging them to actively think about problems and enliven the classroom atmosphere, thus maximizing their value. For the same historical knowledge, there may be many types of visual materials that can illustrate the point. In such cases, teachers should review a wide range of resources, carefully compare them, and select the most typical and useful visual materials that can fully address the issues at hand. On the other hand, the same historical knowledge may be demonstrated through various types of materials from multiple perspectives. Teachers should still adhere to the principle of typicality and use the most illustrative image to maximize the teaching value. Sometimes, the abstract expression of an image can be more concrete than textual descriptions, making it more effective in addressing key points and helping to grasp historical development patterns.

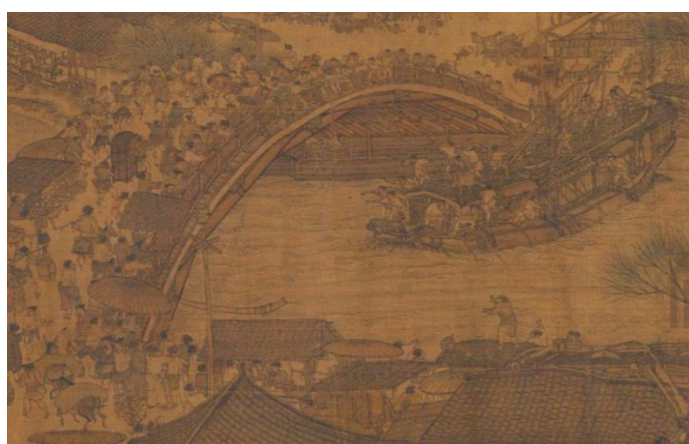


Figure 2 Along the River During the Qingming Festival (detail).The Palace Museum

For example, when teaching *Along the River During the Qingming Festival* (a famous Chinese painting), teachers typically discuss how the painting reflects the urban prosperity of the Northern Song capital, Bianjing. The painting depicts the people of Bianjing enjoying leisure and engaging in trade on the streets, which is used to illustrate the development of the commodity economy during the Northern Song period. However, there are deeper layers of information in the painting that are often overlooked. The title *Qingming* has been widely discussed by historians. The debate centers around the fact that the painting depicts scenes covering all four seasons, rather than focusing on the *Qingming Festival* itself, which is a seasonal term. It is suggested that the title may also imply the political meaning of a

"peaceful era" (Qingming zhi shi), as the painting was originally presented by the artist Zhang Zeduan to Emperor Huizong of the Song Dynasty as a tribute to his good governance. The painting contains rich depictions of human forms, expressions, and various types of shops, all of which reflect the stability and comfort of urban life in Northern Song. Furthermore, the scenes in the painting align with the historical descriptions in ancient texts such as Dongjing Menghua Lu, restoring the social life of Bianjing during the Northern Song period, providing students with highly authentic visual materials.

5.5 Mutual Verification of Text and Images

Peter Burke, in *The Witness of Images*, stated, "Images are mute witnesses and it is difficult to translate their testimony into words" ^[13]. This highlights the importance of visual historical materials. When textual historical materials alone cannot substantiate a historical argument, visual materials can serve as an effective supplement. Additionally, one should not completely disregard the power of visual materials simply because textual sources are sufficient.



Figure3 Sancai-glazed Figure of a Camel Carrying Musicians.National Museum of China

For example, when teaching about the "Economy and Culture of the Sui and Tang Dynasties," a teacher can display the "Tang Tri-colored Glazed Pottery - Tang Camel Riders and Dancers Figurine." The teacher can explain that the Tang Tri-colored Camel Figurine was unearthed in Xi'an from the tomb of General Xianyu Tinghui during the reign of Emperor Xuanzong of the Tang Dynasty. The image shows a camel standing tall, carrying five adult men from Han and Hu ethnicities, all of whom are singing and dancing. The figures are beautifully and vividly modeled, with bright colors, primarily yellow, green, and blue. This artifact's color and form demonstrate the exquisite and mature ceramic craftsmanship of the Tang period. It also serves as mutual evidence of the Tang Dynasty's open and inclusive ethnic policy, which attracted many foreign peoples from the Western Regions to live and trade in the Tang Empire, thus promoting cultural exchange and economic development during that time.

6 Conclusion

The teaching of history relies on historically meaningful language. A well-organized and thought-provoking conclusion can certainly make for a perfect ending to a lesson. However, for high school students, who often have a packed daily schedule, relying solely on the power of language can sometimes fail to leave a lasting impression. Therefore, history teachers can take a unique approach by making good use of the abundant visual historical materials in history teaching. By incorporating appropriate images as a supplement during the conclusion, the teacher can not only achieve a better summary of the lesson but also spark greater interest and anticipation in students for each history class. This approach can truly enhance students' love for history lessons.

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