ISSN: 2710-0170

How Game Mechanics Fit History Learning Objectives: Taking Situational Simulation and Role-Playing as Examples

Ruijie Zou

Subsidiary High School of Taiyuan Normal University, Taiyuan, 030000, China

Abstract

Traditional history instruction often falls into the trap of prioritizing memorization over comprehension and conclusions over process. Students often rely on rote memorization to grasp historical facts, struggling to develop core competencies such as a sense of time and space, the ability to interpret history, and a sense of patriotism. This disconnect exists between the three-dimensional history learning objectives of "knowledge, ability, and emotion" outlined in the new curriculum standards. To address this issue, gamified instruction, leveraging its immersive and interactive nature, has gradually entered the history education field. Situational simulation and role-playing are core mechanisms that align with the principles of history learning. This paper uses literature analysis and case studies, drawing on the practical application of middle school history teaching, to explore the logical fit between two game mechanics and historical learning objectives. Simulations, by recreating historical scenes, help students develop a sense of time and space, meeting the "knowledge objective" of mastering historical facts and spatial and temporal perspectives. Role-playing, by assigning students historical roles, encourages them to actively explore their roles' perspectives and behavioral logic, meeting the "ability objective" of cultivating historical material analysis and historical interpretation. The synergistic use of these two mechanics can further guide students to empathize with historical figures and develop a sense of value, meeting the "affective objective" of cultivating historical literacy. The study found that well-designed simulations and role-playing can transform abstract historical knowledge into concrete experiences, addressing the pain point of traditional teaching methods: the disconnect between history and students' lives. Finally, addressing issues such as biased contextualization and unbalanced role participation, an optimization approach of "historical fact calibration, task stratification, and multi-faceted evaluation" is proposed. This approach provides a reference for the application of game mechanics in history teaching and helps cultivate students' core historical literacy.

Keywords

History learning objectives, game mechanics, situational simulation, role-playing, history teaching, core competencies.

1. Introduction

The essence of history is "understanding and interpreting the past." Its learning goal is not only to enable students to grasp the historical facts of "when, where, and what happened," but also to cultivate historical thinking regarding "why it happened and how it influenced the course," as well as the emotional value of "learning from history and developing a sense of national identity." However, most current history classes still rely on a "teacher lecture plus student memorization" model. Students are faced with fragmented timelines and isolated historical events, making it difficult to understand the logical connections between historical developments and to resonate with historical figures. For example, when studying Wang Anshi's Reforms, students can only recite clauses such as the "Green Seedling Law" and the

ISSN: 2710-0170

"Recruitment Law," but fail to appreciate the resistance to the reforms and Wang Anshi's determination to reform. When studying the Opium War, students only understand the content of the "Treaty of Nanjing" but struggle to understand the differences between China and the West that underlie the trade conflict. The 2022 edition of the "Compulsory History Curriculum Standards" explicitly advocates a "core literacy orientation," requiring teaching to "focus on creating contextual situations and guiding students to engage in exploratory activities." In this context, gamified instruction, with its "experiential learning" characteristics, has become a crucial vehicle for connecting historical knowledge with student cognition. Simulation and role-playing, as core mechanisms of gamified instruction, go beyond simple "teaching for entertainment." Instead, they construct historical scenarios and assign students roles and tasks, allowing them to engage with history as "participants" rather than "spectators." This article focuses on these two game mechanics, drawing on specific teaching cases to analyze how they align with historical learning objectives across the three dimensions of knowledge acquisition, ability development, and emotional nurturing. The article also reflects on practical challenges and optimization paths, aiming to provide a new perspective for breaking through traditional models of history instruction and improving teaching effectiveness.

2. The Three-Dimensional Connotation of History Learning Objectives and Pain Points of Traditional Teaching

The core of history learning objectives is "three-in-one": knowledge objectives focus on "historical facts and time and space", requiring the mastery of key historical facts, figures and systems, and the establishment of time and space positioning capabilities, such as clarifying the attributes of Shang Yang's reforms in the Warring States Period and the Qin State and its causal relationship with Qin's unification; ability objectives focus on "thinking and exploration", requiring the use of historical materials to analyze problems and explain phenomena, such as analyzing the pros and cons of Shang Yang's reform policy of "promoting agriculture and suppressing commerce" through "Records of the Grand Historian: Biography of Shang Yang"; emotional objectives revolve around "values and identity", guiding the understanding of the mainstream direction of history and cultivating family and country feelings, such as understanding the significance of reform to national development from Shang Yang's reforms and establishing a sense of keeping pace with the times[1]. Traditional teaching is difficult to adapt to the three-dimensional goals and has three major pain points: First, knowledge transfer is fragmented. Teachers often list events by time, and students remember isolated "knowledge points" rather than coherent "historical logic". For example, when studying modern Chinese history, students can remember the dates of the Westernization Movement, the Reform Movement of 1898, and the Xinhai Revolution, but they do not understand the exploration and progression of the three "from objects to systems", which violates the temporal and spatial correlation requirements of the knowledge goals; second, ability training is formalized. Historical material analysis often requires teachers to preset conclusions and students to "find answers". For example, when analyzing the causes of the Anshi Rebellion, teachers directly give "feudal separatism and corruption in the government". Students do not need to think about "why the feudal lords were separatist", and it is difficult to form historical interpretation capabilities; third, emotional cultivation is superficial[2]. Teachers often "emphasize meaning" to convey emotions. For example, when studying Yue Fei's anti-Jin war, they are only told that "Yue Fei is a national hero", and students are not allowed to appreciate his patriotic responsibility of "serving the country with loyalty", resulting in superficial emotional identification. The root of these pain points is that traditional teaching regards history as a "completed past" rather than an "understandable process." However, situational simulation

ISSN: 2710-0170

and role-playing can restore the "process," allowing students to shift from passive acceptance to active experience, thus providing the possibility of meeting three-dimensional learning goals.

3. Contextual Simulations: Building an Immersive Bridge for Historical Cognition

Situational simulations: Building an "immersive bridge" to historical cognition. Situational simulations are game-like mechanics that recreate specific historical scenes through text, props, and multimedia. Their core purpose is to "place students in the historical scene," addressing the "time-space alienation" inherent in traditional teaching methods and directly addressing the fundamental requirements of historical knowledge and competency objectives. At the knowledge level, situational simulations can help students develop a "concrete" understanding of time and space[3]. The core of historical knowledge is "spatial location," but traditional teaching methods employ abstract "timelines" and "maps," making it difficult for students to develop a direct understanding. For example, in the lesson "Urban Life in Bianjing, Northern Song Dynasty," teachers can create a classroom with pictures and provide materials such as "jiaozi," "Shibosi documents," and "wazi program guides." Students can then role-play as "merchants, citizens, and craftsmen" and complete tasks such as "shopping on the streets of Bianjing," "watching a variety show in a wazi," and "applying for a trade license." Students will not only retain historical facts such as the Northern Song Dynasty's developed commodity economy, the existence of jiaozi, and the wazi as entertainment venues, but will also understand Bianjing's commercial layout and establish a spatial and temporal understanding of "Northern Song Dynasty urban life," thus avoiding a disconnect between historical facts and context. At the skill level, scenario simulations can motivate students to proactively analyze historical issues. Situations imply historical contradictions, requiring students to observe, reflect, and resolve them rather than passively accept conclusions. For example, in the lesson "Shang Yang's Reforms - Moving a Tree to Establish Trust," teachers can simulate the gates of Xianyang: setting up a three-meter-long tree and posting a notice offering a fifty-gold reward to anyone who moves the tree. Students can then play the roles of "onlookers" and "minor government officials." The officials must explain the purpose of "moving the tree to establish trust," while ordinary people may raise questions such as "did the government fulfill its promise?" and "why did they move the tree?" During student interaction, students should contextualize the concept of "earning the trust of the people" and analyze the relationship between "establishing trust" and "implementing reforms." This truly demonstrates historical interpretation skills—no longer simply memorizing meaning, but rather analyzing it through context. Importantly, the key to scenario simulations is historical accuracy; deviations from historical facts for the sake of "entertainment" are strictly prohibited. For example, when simulating the Tang Dynasty imperial examinations, the inclusion of a plot whereby officials could buy official positions through money is unacceptable. This would mislead students' understanding of the examination system and contradict the knowledge objectives[4].

4. Role-playing: Activating "Subjective Practice" in Historical Experience

If scenario simulations are like "setting the historical stage," role-playing is like "letting students become the protagonists." By assigning students specific historical roles, role-playing encourages them to transform from "spectators" to "participants," actively exploring their roles' perspectives, motivations, and behaviors, deeply aligning with the underlying needs of historical competence and affective goals.

At the competence level, role-playing can cultivate students' multi-perspective historical thinking. Participants in historical events held diverse perspectives, but traditional teaching often interprets them from a "mainstream perspective," which can lead to students'

ISSN: 2710-0170

monotonous thinking. For example, in teaching the "Hundred Days' Reform," students could play the roles of Kang Youwei, Empress Dowager Cixi, Zhang Zhidong, and ordinary farmers. Kang Youwei would articulate his advocacy of "reform and strengthening the country," Cixi would analyze her concerns about the "threat to her rule" posed by the reform, Zhang Zhidong would analyze the differences between the "Westernization Movement" and the "Reform Movement," and farmers would express their concerns about whether the reform would affect their livelihoods[5]. To accurately portray their roles, students should actively consult historical materials such as the "Edict on National Affairs" and analyze the interests of different groups. This process can break through the limitations of "black-and-white" cognition and help students realize that the failure of the Hundred Days' Reform wasn't solely due to Empress Dowager Cixi's opposition, but rather the result of a complex interplay of factors, including conservative forces, reformist strategies, and public perceptions. This effectively enhances their ability to interpret history.

At the emotional level, role-playing can help internalize "historical empathy." Emotional identification presupposes understanding. Traditional "information-based" emotional transmission struggles to resonate, but role-playing allows students to "experience the emotions of the role." For example, in the "War of Resistance Against Japanese Aggression — Nanjing Massacre" lesson, a "survivor's oral narrative" activity could be designed: students, drawing on historical materials such as John Rabe's Diary, play the role of Nanjing citizens recounting their experiences after the Japanese army entered the city. By embracing their roles, students can directly experience the suffering of war, spontaneously developing a consciousness of "opposing war and cherishing peace," and a profound understanding of the nation's suffering, truly internalizing the emotional goal[6].

It is important to note that the key to role-playing is the "legitimate nature of the role and tasks," avoiding the formality of simply "wearing ancient costumes and going through the motions." Task design should be closely aligned with learning objectives. For example, Kang Youwei's role task could be set as "submitting a reform memorial to Empress Dowager Cixi and refuting the conservatives' doubts," ensuring that the activity revolves around "understanding the contradictions of the Hundred Days' Reform" rather than simply being entertaining.

5. Synergistic Mechanisms of Scenario Simulation and Role-Playing: A Closed Loop from "Cognition" to "Internalization"

Scenario simulation and role-playing are not isolated game mechanics. Their synergy can form a learning chain: "Scenario Cognition - Role-Playing - Internalization of Meaning." This complements the shortcomings of individual mechanisms and more comprehensively addresses the three-dimensional learning objectives of history. While single-scenario simulations can allow students to "immerse themselves in historical scenes," they often remain in a passive observation mode, hindering their ability to deeply understand historical contradictions. Single-role-playing, while allowing students to "experience the role," lacks contextual support, and the character's behavior becomes detached from the historical context, resulting in a "formal" role-playing experience. Synergistic mechanisms, however, combine the strengths of both: scenario simulations provide a "historical stage" for role-playing, ensuring that the character's behavior aligns with the historical context; and role-playing injects interactive dynamics into scenario simulations, transforming the scene from a "static presentation" into a "dynamic process." For example, in teaching "The Opium War—The Destruction of Opium at Humen," a collaborative process of "simulation first, role-playing later" could be designed: First, a simulation of the "Humen Beach in Guangzhou in 1839" is created, using a sand table to recreate the beach topography and display props such as "opium boxes" and "opium-destruction pools" to help students understand the "location, tools, and process of

ISSN: 2710-0170

the Humen Destruction of Opium." Second, role-playing characters such as "Lin Zexu," "British opium dealers," "Guangzhou citizens," and "Qing Dynasty officials" are used to complete tasks within the simulated scenario: Lin Zexu is required to order the "inspection of opium and the organization of its destruction," opium dealers are required to explain the "reasons for the opium trade," citizens are required to express their "hatred of opium," and Qing Dynasty officials are required to report on "problems encountered in the destruction of opium." The advantage of this collaborative mechanism lies in its ability to achieve progressive learning objectives: from "knowledge cognition" through simulation, to "skill practice and emotional experience" through role-playing, and finally to the "internalization of meaning" through the combination of the two[7]. For example, in a collaborative activity on the "Humen Opium Destruction," students first learn about "what opium destruction is" through scenario-based scenarios. Then, through role-playing, they consider "why opium was destroyed and what its impact would be." Finally, through role-playing, they experience "Lin Zexu's determination and the support of the people," forming a complete learning loop of "knowledge-ability-emotion." This closed loop avoids the problems of "insufficient understanding and experience" inherent in single-mechanism approaches, moving historical learning from fragmentation to systematization.

6. Reflection and Optimization Paths on the Application of Game Mechanisms in History Teaching

Although situational simulation and role-playing can meet the goals of historical learning, there are still problems in teaching practice. If not solved, it will not only affect the effect, but may also deviate from the essence of historical education.

6.1. Core Issues in Application

First, there's a "deviation in accuracy of contextualization." Some teachers, seeking to make the situation more "interesting," incorporate fictional elements into the scenarios. For example, when simulating "Chang'an during the Tang Dynasty," they include a plot involving selling ice cream at a night market. This "fictional" scenario can mislead students and violate the knowledge objective's requirement for historical accuracy. Second, there's an "imbalance in role participation." Role-playing often results in a "dominant minority and a majority of bystanders." For example, students playing the role of Kang Youwei actively participate, while those playing the role of "ordinary farmers" lack engagement due to the simplicity of the tasks. This results in some students being unable to develop their abilities and experience emotions through their roles. Third, there's a "lack of evaluation system." Most teachers focus solely on the excitement of the activities, failing to establish evaluation criteria aligned with the learning objectives. This makes it impossible to measure whether students have mastered the perspective of time and space and improved their ability to interpret history, making it difficult to quantify and optimize the effectiveness of the game mechanics.

6.2. Optimization Path

To address these issues, improvements can be made in three areas: First, "Historical Fact Alignment." This involves collaborating with history researchers and university teachers to design scenarios and review settings, props, and plots. For example, when designing the "Song Dynasty Maritime Customs Trade" scenario, scholars were consulted to ensure that trade goods and processes were consistent with historical facts and to avoid fictional content. Second, "Task Hierarchy" involves categorizing role tasks into three levels: "Basic, Advanced, and Challenge." For example, for the "Ordinary Peasant" role in the "Hundred Days' Reform," the basic task is "expressing one's views on the reform," the advanced task is "analyzing the reform's impact on agriculture," and the challenge is "presenting peasant demands to the reformists," ensuring

ISSN: 2710-0170

engagement at all levels of students. Third, "Multi-dimensional Evaluation" involves constructing a "Process + Outcome" system. Process evaluation focuses on students' ability to describe historical scenes in scenario simulations and to express their positions through historical materials in role-playing. Outcome evaluation measures effectiveness through "Historical Event Analysis Reports" and "Role-Play Reflection Diaries." For example, after teaching the "Humen Opium Destruction," learning outcomes can be assessed through "retelling the process of the destruction" and "analyzing the impact on the Opium War." In the teaching of "Shang Yang's Reform" in a certain middle school, the "Xianyang City situation" was calibrated with the help of historical scholars, stratified role tasks were designed, and the "situational performance + historical material analysis report" evaluation was adopted. The results showed that the students' memory accuracy of "the content of Shang Yang's Reform" increased by 30%, and the proportion of students who could "analyze the impact of the reform from multiple angles" increased from 25% to 60%, confirming the effectiveness of the optimization path[8].

7. Conclusion

The core of history learning is to "enable students to understand the past, connect with the present, and embrace the future." Simulations and role-playing, with their immersive environments and subjective experiences, provide effective pathways to achieving this goal. From a logical perspective, simulations, by recreating historical scenes, overcome the temporal and spatial alienation inherent in traditional teaching methods, helping students grasp historical facts and develop a perspective on time and space, directly aligning with knowledge objectives. Role-playing, by assigning historical roles, encourages students to explore perspectives and analyze contradictions, cultivating both historical thinking and empathy and fostering value identification, deeply aligning competence and affective goals. The two synergistically form a closed loop of "cognition-experience-internalization," achieving a unified three-dimensional goal. In practice, we must avoid issues such as "historical fact bias," "unbalanced participation," and "lack of evaluation." By optimizing through "historical fact calibration," "task stratification," and "multi-faceted evaluation," we can ensure that history education remains true to its essence. Future digital technology upgrades could incorporate VR and AR into the curriculum, such as VR recreating the Qing Dynasty court meeting and AR enabling virtual role-playing. However, the core principle remains "based on historical facts, student-centered, and literacy-oriented." In summary, situational simulations and role-playing are not a replacement for traditional teaching, but rather a supplement and upgrade. Their proper application can transform history classes from "boring memorization" to "lively experiences," guiding students to "enter history," ultimately achieving the goal of cultivating core historical literacy and laying the foundation for establishing a correct historical perspective and values.

References

[1] Keller, C W. Role-playing and simulation in history class [J]. History Teacher, 1975, 8 (4): 573-581.

[2] Cheng Bin. Design and development of middle school history role-playing game based on RMXP [D]. Henan Normal University, 2013.

[3] Leemkuil H H, de Jong T, Ootes S A W. A review of educational applications of games and simulations [J]. 2000.

[4] Lin Xiaolian. Research on the application of gamification teaching in junior high school history classroom [D]. Mudanjiang Normal University, 2025. DOI: 10.27757/d.cnki.gmdjs.2025.000003.

[5] Hammer J, To A, Schrier K et al. Learning and role-playing games [M] // Routledge Handbook of Role-playing Game Research. Routledge, 2024: 299-316.

ISSN: 2710-0170

[6] Fang Jie. Research on the Design and Application of Gamified History Teaching in Junior Middle Schools [D]. Hangzhou Normal University, 2024. DOI: 10.27076/d.cnki.ghzsc.2024.000826.

[7] Ma Yichao. Research on the Design and Application of Gamified History Learning in Junior Middle Schools [D]. Xinyang Normal University, 2023. DOI: 10.27435/d.cnki.gxsfc.2023.000423.

[8] Shen Zhou. Research on the Design and Application of Situational Educational Games [D]. Huzhou Normal University, 2022. DOI: 10.27946/d.cnki.ghzsf.2022.000101.