

Youth Reception of Micro-Dramas Based on Lüliang Spirit and Liu Hulan's Deeds: A Quantitative Empirical Analysis of a Self-Produced Micro-Drama

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ABSTRACT

In the digital media era, micro-dramas have emerged as a popular format for youth-oriented content, yet the reception of red culture micro-dramas among young audiences remains underexplored. This study aims to investigate youth acceptance of a self-produced micro-drama based on Lüliang Spirit and Liu Hulan's deeds. A quantitative approach was adopted, combining platform viewership data with a questionnaire survey to capture both behavioral and attitudinal dimensions of audience engagement. A total of 95 valid responses were collected from university students across various disciplines. Descriptive statistics and independent-sample t-tests were employed to analyze the data, focusing on demographic variables and key acceptance metrics.

Key findings include: Independent samples t-test results showed that gender was statistically significant only in the dimension of clear and understandable plot within perceived quality ($p < 0.05$), with males scoring significantly higher than females. This suggests that narrative clarity may be prioritized differently across genders in educational content evaluation. No statistically significant gender differences were found in the dimensions of emotional identity, cognitive improvement, or sharing intention, indicating that the core values and educational impact of red culture micro-dramas resonate uniformly. The micro-drama successfully fostered emotional connection and enhanced historical understanding among viewers, while also stimulating willingness for social sharing.

These findings provide empirical insights into how university students accept red culture micro-dramas and offer practical implications for the creation of youth-oriented red culture content by student teams with limited resources. The results underscore that while technical production values may be constrained, focusing on authentic emotional storytelling and clear historical narrative can effectively engage young audiences. The study demonstrates that micro-dramas can serve as an accessible medium for cultural transmission, particularly when they balance educational objectives with engaging narrative techniques that align with youth media consumption habits.

Keywords: Lüliang Spirit; Liu Hulan; Micro-drama; Youth acceptance; Quantitative empirical analysis

INTRODUCTION

Short-form dramas have rapidly emerged as one of the core channels for contemporary youth to access information, engage in entertainment, and participate in cultural consumption. Their defining characteristics of being "short, accessible, and fast-paced"—with individual episodes typically lasting only a few minutes, featuring compact narrative rhythms, and relatively low barriers to both production and viewing—precisely align

with the fragmented time utilization habits and efficient information reception preferences of young people in the mobile internet era. Data indicates that as of 2025, the user base of China's short-form drama market has reached hundreds of millions, with young users aged 15 to 34 constituting the absolute majority, averaging over 100 minutes of daily usage. This high penetration rate and strong user engagement demonstrate that short-form dramas have evolved beyond mere entertainment into a significant communication vehicle capable of influencing youth values and shaping their cultural cognition, endowed with substantial potential for content delivery and ideological dissemination.

Red culture is a spiritual treasure of the Chinese nation and a core component of the spiritual lineage of the Chinese Communists. Its effective transmission to the younger generation has long been a key focus of ideological, political, and cultural development efforts. However, in the contemporary communication context, red culture faces a significant intergenerational communication gap among young people. Traditional didactic and exhibition-style dissemination methods, characterized primarily by one-way indoctrination and grand narratives, often struggle to inspire deep resonance and emotional identification among youth due to their rigid forms and detached discourse systems. As a result, the effectiveness of such communication faces the challenge of diminishing marginal returns. Against this backdrop, the use of short-form dramas to convey red-themed content—referred to as “red short-form dramas”—has emerged as a novel communication strategy aimed at bridging this gap. Leveraging the narrative advantages of short-form dramas, this approach seeks to promote the online and lightweight dissemination of red culture in a manner that resonates with young audiences. However, this very approach has sparked debates within both academic and industry circles: Does its “short and fast” nature dilute the profound weight of red history? How should the boundary between entertainment-oriented expression and serious themes be navigated? More importantly, there remains a lack of systematic evaluation and rigorous answers based on empirical data regarding whether this emerging format can genuinely and effectively enhance the communication efficacy of red culture among youth. This constitutes a critical practical issue that urgently requires exploration.

Selecting the Lüliang Spirit and its exemplary representative—the deeds of the martyr Liu Hulan—as the core case study for the creation and research of short-form dramas carries profound cultural value and distinct exemplary significance. The essence of the Lüliang Spirit, which encompasses “hard work and struggle, considering the overall situation, self-improvement, and the courage to innovate,” represents a precious spiritual asset of the Communist Party of China forged during a specific historical period. The martyr Liu Hulan's resolute vow, “I would never join the Communist Party if I feared death,” and her heroic sacrifice at the age of 15, characterized by the ultimate dedication of youth and unwavering revolutionary faith, have made her a highly evocative and symbolic figure within the spiritual lineage of the Communist Party of China. She is also the youngest known female martyr in the history of the Party. Translating this profoundly spiritual and emotionally impactful exemplary story into a short-form drama narrative that aligns with contemporary youth aesthetics presents a challenge: how to balance historical authenticity, spiritual depth, and artistic appeal within a limited duration. This transformative practice itself represents a pioneering exploration of the creative transformation and innovative development of red culture. The lessons learned from its success or failure hold significant pilot value and exemplary significance for leveraging new media to inherit the red legacy and inspire emotional identification among youth with revolutionary spirit.

Although the digital dissemination of red culture has become a research hotspot, there remains a significant gap in academic studies focusing on “red short-form dramas” and their reception effects among young people. First, there is a methodological bias toward macro-level and qualitative approaches: existing research predominantly engages in theoretical deduction, strategic discussion, or case description from the perspectives of communication studies or literary theory. There is a lack of systematic, quantitative empirical analysis based on large samples, particularly a deficiency in the precise measurement of “reception effects” from the audience's

perspective. Second, there is insufficient in-depth examination of self-created content: most studies analyze existing, already broadcast red short-form dramas, while research that adopts a forward-looking perspective to track the effects and dissect the mechanisms of a self-created short-form drama with a clear research orientation through the entire process of “design-creation-dissemination-evaluation” is extremely rare. Such “self-created case” studies allow for more controlled content variables and can better test theoretical hypotheses. Finally, there is inadequate integration of perspectives: existing research fails to sufficiently combine objective platform dissemination data (such as playback and interaction behaviors) with subjective audience psychological data (such as cognition, attitudes, and behavioral intentions) to conduct cross-validation and correlation analysis of multidimensional effects. Therefore, the current field urgently requires an empirical study that integrates quantitative methods, focuses on self-created cases, and bridges objective and subjective data to fill this gap.

To address the aforementioned practical challenges, the value of the case study, and the existing research gaps, this study aims to conduct an empirical investigation to systematically evaluate the dissemination effectiveness and reception mechanisms of a self-produced short-form drama themed on the Lüliang Spirit and the deeds of Liu Hulan among young audiences. Specifically, the research will integrate data mining from short-video platform analytics and questionnaire surveys targeting university students, with the goal of answering the following four progressively structured research questions:

RQ1: What is the platform communication performance of this short micro-drama in terms of view count and completion rate?

RQ2: What levels do college students’ awareness, emotional identification, and sharing intention of this short micro-drama reach?

RQ3: Are there significant gender differences in the acceptance of short micro-dramas?

By addressing these questions, this study aims to provide evidence-based practical insights and theoretical contributions to support the youth-oriented and effective dissemination of red culture in the digital era.

LITERATURE REVIEW

Research on the Platform Communication Performance of Online Micro-dramas

Platform Algorithm Mechanisms and Communication Efficacy

The core focus of research on the platform communication performance of online micro-dramas lies in the impact of algorithm recommendation mechanisms on content distribution. Li Yong and Liu Mengru (2026) point out that platforms employ the “15-second golden rule” to summarize the principles of attracting user attention, using dynamic covers, high-conflict visuals, climax background music, and other audiovisual design elements to enhance user retention. The precise calculations and interactive design of the algorithm directly influence user stickiness. Their research further reveals that platforms set up a “golden operation zone” in the area most easily accessible by the thumb, improving the continuation viewing rate through automatic continuous playback, thereby forming a “low-cost, high-conversion” communication network.

Zhang Yong and Zheng Qiang (2026), in their study on red-themed micro-dramas, found that algorithm mechanisms have a dual effect: on one hand, precise data analysis and user profiling can enhance the efficiency of content reach; on the other hand, if young users do not actively browse red cultural content, algorithm recommendations can easily create an “information cocoon,” leading to the “quiet absence of red culture” and weakening the scope of educational influence. This finding reveals the structural contradiction of platform

algorithms in mainstream value dissemination—the tension between the assumption of technological neutrality and the demand for value orientation.

Interaction Mechanisms Between Content Production and Platform Ecology

Fei Shuang (2026) supplements the content logic of platform communication from the perspective of narrative strategies, noting that micro-dramas achieve fast-paced storytelling through a “three-act structure + narrative hooks” and regulate user attention with a model combining “high density and delay,” forming a cyclical chain of “curiosity—verification—sense of accomplishment.” This narrative design essentially adapts to the platform’s traffic logic—maximizing the intensity of emotional stimulation within a limited duration to align with core platform metrics such as completion rate, interaction rate, and conversion rate.

Wu Jiangxue (2026) critically points out that the platform’s traffic economy and the promotion of commercial capital have led to the phenomenon of “bad money driving out good money”: vulgarized and trivialized plots, through themes such as “domineering boss romance” and “rich family revenge,” compete for traffic resources, squeezing out the creative space for high-quality works. This judgment prompts researchers to pay attention to the structural imbalance in platform communication performance—the asymmetric relationship between technological efficiency and value efficacy.

Platform Matrix and Cross-Media Communication

Jia Lei (2025), in their study on the digital communication of Lvliang’s red cultural heritage, provides a reference framework for constructing a platform matrix, proposing a “cloud + edge” collaborative sharing mechanism: the national cloud platform aggregates high-quality resources, edge nodes deploy county-level education centers to cache high-frequency content, and satellite classroom systems utilize 5G private networks to achieve remote interaction. This model offers insights for the platform communication of micro-dramas—how to overcome the bottleneck of uneven resource distribution through a multi-level platform architecture.

Zhang Liuxun (2026), in their case study of the red-themed micro-drama *True Detective: 1927*, shows that platform communication can be deeply coupled with offline scenarios: through the “City Walk” model, audiences are guided to visit revolutionary sites, achieving a closed loop of “online traffic—offline experience—online secondary communication.” This O2O (Online to Offline) communication model expands the research dimensions of platform performance, highlighting the need to focus on the interaction effects between virtual and physical spaces.

Research Evaluation and Support for RQ1

Existing research on platform communication has established a three-dimensional analytical framework of “algorithm—content—scenario,” but the following limitations remain: First, the platform black box problem—most studies describe the structural impact of algorithm recommendations but lack internal data support for the specific recommendation algorithm mechanisms and traffic distribution rules of platforms such as Douyin and Kuaishou. Second, the measurement of communication effects is simplistic—existing research often relies on surface-level metrics such as view counts and likes, with insufficient attention to efficacy indicators such as deep reading rates, value identification levels, and behavioral conversion rates. Third, a lack of cross-platform comparative research—the differences in communication performance across different platforms (short video platforms vs. long video platforms, comprehensive platforms vs. vertical platforms) have not been systematically compared.

Regarding RQ1 (the platform communication performance of online micro-dramas), future research could focus on: the value-embedding mechanisms of platform algorithms (how to prioritize mainstream value

recommendations without compromising technological efficiency), optimal strategies for multi-platform collaborative communication (differentiated positioning and content adaptation across platforms), and the construction of a comprehensive evaluation system for communication efficacy.

A Study on Audience Cognition, Emotional Identification, and Sharing Intention of Red-Themed Micro-Dramas

Audience Cognition Mechanism: From “Audiovisual Concretization” to “Historical Understanding”

Research on audience cognition of red-themed micro-dramas presents a progressive framework from “superficial to deep.” Zhang Yong and Zheng Qiang (2026) propose the “audiovisual concretization” mechanism: red-themed micro-dramas employ narrative techniques such as “temporal dialogue” and youth-oriented content expression to concretize profound red cultural content into immersive story scenarios, enabling audiences to “consciously approach red culture from the depths of their hearts and comprehend its essence.” This mechanism reveals a sensory-first pathway for cognitive transformation—reducing cognitive barriers through multi-channel visual and auditory stimuli, gradually leading to historical understanding.

Zhang Liuxun (2026) further refines this into a cognitive strategy of “combining grand narratives with individual narratives”: while retaining macro-backgrounds such as revolutionary wars, the focus is placed on the “small stories” and “subtle details” of specific characters, making red history “more relatable to the emotional experiences of contemporary audiences.” The study particularly emphasizes “using ‘objects’ to tell stories of the past”—red cultural relics, as “vivid carriers of Party history memory,” evoke audience resonance with revolutionary spirit through specific items such as “small radios” and “diaries.”

However, research on cognitive mechanisms also highlights potential risks. Zhang Yong and Zheng Qiang (2026) point out that the fragmented narrative logic of red-themed micro-dramas may “disrupt the integrity of red culture’s educational function.” The creative paradigms of time compression and spatial folding transform complete and coherent red stories into “short, impactful emotional audiovisual scenes,” leading younger audiences to “understand red culture from a superficial and fragmented perspective.” This observation prompts researchers to examine the nonlinear relationship between cognitive depth and communication effectiveness.

Emotional Identification Mechanism: From “Emotional Resonance” to “Value Internalization”

Research on emotional identification is a core issue in the study of red-themed micro-drama effects. Zhang Yong and Zheng Qiang (2026) construct an emotional progression model of “emotional resonance—historical identification—value sublimation”: red-themed micro-dramas first evoke emotional resonance through entertainment elements aligned with “pleasure culture,” then establish connections between history and reality through “temporal dialogue,” and ultimately achieve “value sublimation from emotional resonance to historical identification.” The study particularly emphasizes the formation mechanism of “red social circles”—through bullet comments, likes, and shares, achieving “an emotional transition from loving the drama to loving the country,” solidifying emotional identification through aggregated interactions.

Zhang Liuxun (2026) adds from the perspective of emotional narrative that red-themed micro-dramas “take emotion as the core, transforming revolutionary history from rational textual records into emotionally moving experiences through delicate emotional conflicts and psychological depictions.” Plots such as “nine cooks and a marching pot” in *I Opened a Supermarket on the Long March*, based on real events, “allow the Long March spirit to be inherited and promoted, transforming into an emotional force that transcends time and space.” This finding reveals the synergistic effect of emotional authenticity and artistic authenticity.

Gong Donghong and Shen Yunjia's (2025) study on the historical dissemination of the opera Liu Hulan provides a classic reference for emotional identification: during its premiere in 1948, "avenge Liu Hulan" became a powerful slogan of the Liberation War era; audiences, through Liu Hulan's struggles in the opera, "felt the hardships of the Chinese Communist Party during the Liberation War." How such emotional mobilization effects translate into contemporary red-themed micro-dramas warrants in-depth comparative analysis.

Sharing Intention Mechanism: From "Individual Consumption" to "Social Currency"

Research on sharing intention is relatively sparse in existing literature, but insights can be drawn from related discussions. Li Yong and Liu Mengru (2026), in their study of general micro-dramas, note that "social currency" is one of the core psychological needs of Generation Z audiences—micro-dramas spark discussions on social media through unique plots and character portrayals, enabling audiences to find "niche themes and like-minded groups" through bullet comments and discussions, making them part of their "personal identity labels." When a short drama becomes popular, the creative team adopts reverse interaction strategies, "transforming plot fans into actor fans, thereby expanding the fan base."

Wu Jiangxue's (2026) research reveals the risks associated with sharing intention: some users are driven to watch by "group consensus," using "'rustic' or 'local' dramas to showcase individuality," and "capturing intense moments to post online, gaining social recognition." Such fragmented and deconstructive sharing behaviors may dilute the serious significance of red-themed micro-dramas, prompting researchers to examine the issue of contextual integrity in shared content.

Zhang Liuxun (2026) emphasizes "interactive storytelling" as a strategic reference for enhancing sharing intention: the interactive version of *The Mysterious Adventures of Moyu 2* allows audiences to help characters make choices at key plot points, with "different choices unlocking varied plotlines," enabling audiences to "experience multiple parallel timelines immersively and explore diverse possibilities for self-realization." This participatory narrative may enhance the autonomy and sense of achievement in sharing.

Research Evaluation and Support for RQ2

Existing research has preliminarily established the "cognition—emotion—behavior" effect chain of red-themed micro-dramas, but significant gaps remain: First, insufficient operationalization of emotional identification measurement—most studies rely on interpretive descriptions, lacking objective measures such as emotional scales or physiological indicators (e.g., skin conductance, heart rate variability). Second, underdeveloped analysis of influencing factors for sharing intention—existing research often treats sharing as a byproduct of communication, with insufficient systematic analysis of its antecedents (e.g., content characteristics, social relationships, platform incentives). Third, a lack of research on the sustainability of identification effects—existing studies fail to effectively distinguish whether emotional identification elicited by red-themed micro-dramas is an immediate emotional reaction or a sustained attitude change.

Regarding RQ2 (audience cognition, emotional identification, and sharing intention of red-themed micro-dramas), future research could focus on: hierarchical measurement of cognitive depth (e.g., factual memory, conceptual understanding, value reasoning), longitudinal tracking of emotional identification persistence, and differentiated driving mechanisms of sharing intention (altruistic sharing vs. self-presentational sharing).

Research on Gender Differences in Media Reception

Gender Preference Differences in Micro-Drama Consumption

Research on gender differences in existing literature exhibits the characteristic of "more explicit descriptions, less mechanism analysis." Li Yong and Liu Mengru (2026) provide key data: unmarried women aged 18–25

“harbor romantic fantasies and impulses about love, often preferring themes such as domineering CEOs and sweet or tragic romance”; working professionals aged 25–35 (gender unspecified but implicitly female-dominated) “primarily seek emotional catharsis, tending to choose themes like underdog revenge and rebirth against adversity.” This finding reveals the intersectional effect of age and gender—young women’s genre preferences are closely linked to emotional needs at different life stages.

Fei Shuang (2026) notes from the perspective of genre-specific appeal that sweet romance themes “adopt a formulaic narrative model akin to adult fairy tales,” “using romantic narrative techniques to vicariously satisfy users’ fantasies of ‘perfect love,’ compensating for emotional gaps in real life.” This argument implies a gendered emotional compensation mechanism—female audiences derive emotional satisfaction from micro-dramas that is difficult to achieve in reality. However, the study also critically points out that some micro-dramas “portray young women as materialistic, decorative, or dependent, promoting profit-driven principles and glorifying values such as unearned gains and social climbing.” Such stereotypical gender representations may have negative effects on female audiences.

Wu Jiangxue (2026) further reveals the gender dimension of “stereotyped character portrayals”: online micro-dramas frequently reproduce labels such as “women = emotionally dependent” and “the wealthy = cold and powerful,” “simplifying complex human nature into single traits” and “reinforcing stereotypical cognitive schemas regarding gender, class, profession, and other social categories.” This mechanism of media reproduction of gender stereotypes poses potential risks to the formation of gender attitudes among Generation Z youth.

Gender Differences in the Reception of Red Culture

The gender perspective in red culture research is relatively underdeveloped, but insights can be drawn from related literature. Qin Linfang’s (2023) study of the opera Liu Hulan holds significant referential value: the portrayal of Liu Hulan in the opera is “a new archetype of a revolutionary woman with noble qualities,” “embodying the Chinese people’s lofty ideals of creating a new society and the Communist Party members’ courageous and tenacious revolutionary spirit.” This “de-gendered” heroic narrative—emphasizing revolutionary identity over female identity—raises questions about how it translates into contemporary red-themed micro-dramas.

Zhang Yong and Zheng Qiang (2026) mention the red-themed micro-drama *Youthful Me*, which features “a group of young students deeply influenced by the *New Youth* magazine,” showcasing “the struggles and endeavors of the younger generation amid the tides of the era.” The gender composition of this case (male-to-female ratio, role allocation) is not analyzed in detail, but it prompts researchers to consider the issue of gender visibility in red narratives—are female characters portrayed as historical subjects or as supplementary figures?

Zhang Liuxun’s (2026) study of *Riding the Wave* presents “a collective narrative of three sisters, depicting women’s survival struggles through realist techniques and highlighting solidarity among women,” “breaking stereotypes about youth groups.” This case offers a reference for narratives centered on female agency, though its representativeness in the broader production of red-themed micro-dramas remains unclear.

Gender Differences in Digital Media Literacy

Ren Mengjie and Jiang Mengyu’s (2025) research on digital technology empowering aesthetic education implicitly touches on gender dimensions: the study mentions “tactile art installations” that allow “visually impaired students to perceive sculpture forms through vibration feedback,” raising “the coverage of aesthetic education in special education to 100%.” This case of technological inclusivity highlights the need to examine gender differences in technology access and use—do women (including those with disabilities) face structural barriers in accessing digital aesthetic education resources?

Qiu Tao and Mai Chenduo (2024) propose a digital aesthetic education evaluation system that does not explicitly incorporate gender variables, but their emphasis on "personalized improvement suggestions" offers methodological insights for gender-differentiated media literacy education.

Research Evaluation and Support for RQ3

Existing literature's attention to gender differences in media reception exhibits a "fragmented and implicit" characteristic, with no systematic gender analysis framework yet established. Major limitations include: First, insufficient operationalization of gender variables—most studies treat gender as a simplistic demographic background variable, without delving into complex dimensions such as gender role attitudes, gender identity, and intersectional identities. Second, a lack of research on male audiences—existing studies heavily focus on female preferences, with serious neglect of male audiences' motivations for consuming micro-dramas and their reception characteristics of red culture. Third, weak intersectional analysis of gender with generation, class, and region—for instance, comparative studies on the differential reception mechanisms between rural young women and urban professional women are still lacking.

Regarding RQ3 (gender differences in media reception), future research could focus on: gender representation analysis in red-themed micro-dramas (functional types, narrative positions, and discursive power of female characters), comparative reception mechanisms between male and female audiences (differences in cognitive pathways, emotional triggers, and sharing behavior patterns), and gender-sensitive media literacy education strategies (how to cultivate critical gender awareness).

Comprehensive Review and Suggestions for Research Framework

Upon reviewing the literature across the three dimensions, it is evident that existing research has established a foundational framework of "communication mechanisms—reception effects—subject differences," but significant gaps in integration remain. Specifically:

First, the linkage between platform communication and reception effects has not been fully established. Existing studies either focus on the technical logic of platform algorithms or examine the psychological responses of individual audiences. However, there is a lack of systematic analysis on how platform characteristics mediate reception effects, such as how the composition of user groups, community culture, and interaction rules across different platforms differentially shape cognition, emotions, and behaviors.

Second, there is insufficient integration of research on the unique characteristics of red culture and the general patterns of micro-dramas. Studies on red-themed micro-dramas face the "two-layer dilemma"—either emphasizing the uniqueness of red culture while neglecting media dynamics, or applying general micro-drama analytical frameworks that dilute the distinctiveness of red culture. Establishing an analytical paradigm that respects both the political and serious nature of red culture and aligns with the communication patterns of micro-dramas is key to theoretical innovation.

Third, there is an urgent need for methodological advancements in gender difference research. Existing gender analyses often remain at a descriptive level. It is necessary to incorporate theoretical resources from gender studies (e.g., social gender theory, intersectionality theory, masculinity studies), establish gender-sensitive analytical categories (e.g., gaze, subjectivity, emotional labor), and adopt mixed-methods designs (quantitative measurement + qualitative in-depth description) to enhance the depth of research.

Based on the above analysis, it is recommended that your research adopt the following integrated framework: treat platform communication performance as the independent variable (RQ1), audience cognition, emotional identification, and sharing intention as the dependent variables (RQ2), and gender differences as the moderating

variable (RQ3). Additionally, incorporate content characteristics (e.g., purity of red culture, narrative strategies) and user characteristics (e.g., media literacy, political identity) as control variables to form a research model of “platform—content—user” three-dimensional interaction.

METHODOLOGY

Research Design

This study adopts a quantitative research method. The purpose of the quantitative data in this study is to describe the current situation of youth audiences’perceived content quality, emotional identification, communication intention and acceptance attitude towards the self-produced micro-dramas based on Lüliang Spirit and Liu Hulan’s deeds.

Participants

Table 1 Distribution Characteristics of Survey Participants

Characteristics	Category	Sample size
Gender	Male	31
	Female	64
Grade	Freshman	26
	Sophomore	22
	Junior	24
	Senior	19
	Postgraduate	4
Discipline Category	Humanities and Social Science	33
	Science and Engineering	27
	Arts and Physical Education	35
	Other	0
Political Affiliation	CPC Member (including Probationary Party Members)	17
	League Member	39
	General Public	39
	Other	0

Convenience sampling was adopted to investigate 95 students from Lüliang University with questionnaires. The participants chosen for this study were students from Lüliang University who watched the self-produced micro-dramas based on Lüliang Spirit and Liu Hulan’s deeds. They were invited to take part in this study after watching the micro-dramas. Among the participants, 32.63% are males (n = 31) and 67.37% are females (n = 64). There were 27.37% freshmen (n = 26), 23.16% sophomores (n = 22), 25.26% juniors (n = 24), 20.00% seniors (n = 19), and 4.21% postgraduates (n = 4). Although we only selected university students as respondents, we conducted sampling based on their different academic disciplines. All the samples are from the following disciplines: humanities and social science (n = 33, 34.74%), science and engineering (n = 27, 28.42%), arts and physical education (n = 35, 36.84%). In terms of political affiliation, 17.89% are CPC members (including Probationary Party Members) (n = 17), 41.05% are League Members (n = 39), and 41.05% are the general public (n = 39).

Instruments

This study adopted the questionnaire survey method to collect data, aiming to investigate Lüliang University students’ perceived quality, emotional identity, cognitive improvement and sharing intention towards the self-produced micro-dramas based on Lüliang Spirit and Liu Hulan’s deeds. The questionnaire consists of 20 items, all presented in Chinese, using a five-point Likert-type scale ranging from 1 (completely disagree) to 5 (completely agree).

Data analysis

The raw data collected through the questionnaire in this study were first organized and entered into Microsoft Excel for data cleaning and coding. After ensuring the completeness and accuracy of the data, they were imported into SPSS 25.0 statistical software for subsequent analysis. In the data analysis phase, descriptive statistical methods were first applied to calculate the mean, standard deviation and frequency of each research variable (perceived quality, emotional identity, cognitive improvement and sharing intention), so as to systematically present the overall cognitive status and evaluation level of Lüliang University students towards the self-produced micro-dramas based on Lüliang Spirit and Liu Hulan's deeds. On this basis, an independent-samples t-test was further conducted targeting gender differences, to conduct an in-depth analysis of the score differences among different gender groups in the dimensions of perceived quality, emotional identity, cognitive improvement and sharing intention, clarify the impact of gender factors on the acceptance of micro-dramas, and provide data support for the refinement of subsequent research conclusions.

RESULTS

Platform dissemination data

Table 2 Viewing Data of the Short Drama “Liu Hulan”

	Episode1	Episode2	Episode3	Episode4	Episode5
View Count	350	185	34	42	583
Visitor Play Ratio	99.4%	99.5%	94.1%	95.2%	99.8%
Average Viewing Progress	23.3%	43.8%	61.4%	27.5%	27.7%

From the platform dissemination data, the viewing performance of the micro-drama Liu Hulan varies significantly across episodes. Episode 5 recorded the highest views at 583, followed by Episode 1 at 350, while Episode 3 and 4 saw a sharp drop to 34 and 42 views respectively, indicating users' tendency to skip to the ending and the need to improve the attractiveness of middle episodes.

All episodes maintained a visitor completion rate of over 94% (up to 99.8%), showing excellent content appeal for users who entered the episodes, though middle episodes had slightly lower completion rates.

Notably, average viewing progress contrasted sharply with completion rate: most episodes had an average progress of 23.3%-43.8%, while Episode 3 reached 61.4% due to its small sample size of highly engaged users, reflecting that most viewers only browsed briefly rather than finishing the content.

The Overall Acceptance of Micro-drama Among College Students

Table 3 The mean and standard deviation of each dimension

Dimension	Item	M	SD
Perceived Quality	Clear and easy-to-understand	4.32	0.71
	Authentic historical scenes	4.05	0.83
	Moving performance	4.27	0.69
	Acceptable overall production quality	4.36	0.65
Emotional Identity	Touching image of Liu Hulan	4.21	0.76
	Increased admiration	4.18	0.79
	Aroused patriotic feelings	4.35	0.7
	Resonance with spirit	4.16	0.81
Cognitive Improvement	Better understanding of spirit	4.38	0.67
	Deeper understanding of spirit	4.23	0.74
	Increased interest in red culture	4.31	0.68
Sharing Intention	Willing to recommend to friends	4.26	0.73
	Willing to repost on platforms	3.94	0.89
	Hope for more student- made short dramas	4.33	0.66

To systematically evaluate the educational and communication effects of the red-themed micro-drama, this study adopted four core variables: perceived quality, emotional identification, cognitive enhancement, and sharing willingness. Perceived quality refers to the audience’s subjective evaluation of the micro-drama’s production quality, narrative techniques, and overall presentation. Emotional identification focuses on the degree of emotional connection and resonance that individuals experience with the characters, the story, and the spirit conveyed during viewing. Cognitive enhancement emphasizes the positive changes in knowledge, awareness, and understanding of the Lüliang Spirit and Liu Hulan’s deeds that occur among the audience through watching the micro-drama. Sharing willingness refers to the audience’s behavioral tendency to actively recommend, disseminate, or participate in discussions about the micro-drama through online or offline channels after viewing. Together, these variables construct a logical chain of “cognition–emotion–behavioral intention” that systematically answers the questions “Is it good?”, “Is it moving?”, “What have I learned from it?”, and “Will I recommend it?”, forming a closed evaluation loop for red-culture communication.

Table 3 presents the mean (M) and standard deviation (SD) of audience perceptions on these four dimensions. All items have a mean above 3.94, indicating that respondents generally evaluate the student-produced work positively, and it has achieved effective reception in spreading red culture. Cognitive enhancement and perceived quality are the most prominent dimensions. The item “better understanding of the Lüliang Spirit” reaches the highest mean of 4.38 with a small SD of 0.67, showing that the drama effectively deepened audience understanding. The item “overall production quality is acceptable” scores 4.36, with all SDs below 0.85, reflecting wide approval of its content, historical representation, and performance. In terms of emotional identification, the item “aroused patriotic feelings” scores 4.35, indicating the work successfully stimulated national pride. Sharing willingness shows clear divergence. While “expecting more student-made red micro-dramas” scores 4.33, “willing to repost on social platforms” has the lowest mean of 3.94 and the highest SD of 0.89, suggesting weak and varied willingness to spread the work actively. Overall, the drama performs well in perceived quality, cognitive enhancement, and emotional identification, yet needs improvement in motivating audience sharing willingness and expanding its influence.

Analysis of Differences Among Different Groups

Table 4 Independent t-test analysis of the perceived quality dimension

Analysis Item	Item	Gender	N	M	SD	Mean Difference	95% CI of Difference	t	df	p
Perceived Quality	Clear and easy-to-understand	Male	31	4.39	0.62	0.40	0.014 ~ 0.791	2.058	93	0.042*
		Female	64	3.98	1.00					
		Total	95	4.12	0.91					
	Authentic historical scenes	Male	31	4.32	0.65	0.01	-0.291 ~ 0.311	0.067	93	0.947
		Female	64	4.31	0.71					
		Total	95	4.32	0.69					
	Moving performance	Male	31	4.06	0.89	0.16	-0.291 ~ 0.607	0.700	93	0.486
		Female	64	3.91	1.09					
		Total	95	3.96	1.03					
	Acceptable overall production quality	Male	31	4.26	0.73	0.10	-0.224 ~ 0.428	0.620	93	0.537
		Female	64	4.16	0.76					
		Total	95	4.16	0.76					

An independent samples t-test was performed to examine group differences in the Perceived Quality dimension (Group 1: n=31; Group 2: n=64; total N=95). Results revealed a statistically significant difference only for the item Clear and easy-to-understand, $t(93) = 2.05, p = .042$, with Group 1 ($M = 4.39, SD = 0.62$) reporting significantly higher scores than Group 2 ($M = 3.98, SD = 1.00$). No significant between-group differences were observed for the remaining three items (all $p > .05$). All items achieved overall mean scores above 3.96, indicating generally consistent, positive evaluations of the micro-drama’s quality across both groups.

Table 5 Perceived Quality: Linear Regression Analysis Results for “The plot of this drama is clear and easy to understand”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.790	0.340	-	14.086	0.000**	-	-
Gender	-0.403	0.196	-0.209	-2.058	0.042*	1.000	1.000
R^2	0.044						
Adjust R^2	0.033						
F	$F(1,93)=4.237, p=0.042$						
D-W statistic	2.133						
Dependent variable = Perceived Quality:Clear and easy-to-understand							
* $p < 0.05$ ** $p < 0.01$							

Table 5 presents the results of a linear regression analysis examining gender as a predictor of perceived quality of the micro-drama’s plot clarity. The overall regression model was statistically significant, with $F(1, 93) = 4.237, p = 0.042$, and explained 4.4% of the variance in perceived clarity ($R^2 = 0.044, Adjusted R^2 = 0.033$). The constant term was positive and highly significant ($B = 4.790, p < 0.001$), while gender emerged as a significant

negative predictor ($B = -0.403$, $Beta = -0.209$, $p = 0.042$), indicating that female participants rated the drama’s plot clarity significantly lower than male participants. No multicollinearity issues were detected ($VIF = 1.000$), and the D-W statistic of 2.133 suggested no problematic autocorrelation in the residuals.

Table 6 Perceived Quality: Linear Regression Analysis Results for “The historical scenes in the drama feel real to me”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.223	0.393	-	10.744	0.000**	-	-
Gender	-0.158	0.226	-0.072	-0.700	0.486	1.000	1.000
R^2	0.005						
Adjusted R^2	-0.005						
F	$F(1,93)=0.490, p=0.486$						
D-W statistic	1.967						
Dependent variable= Perceived Quality:Authentic historical scenes							
* $p < 0.05$ ** $p < 0.01$							

Table 6 presents the results of a linear regression analysis examining gender as a predictor of perceived authenticity of historical scenes in the micro-drama. The overall regression model was not statistically significant, with $F(1, 93) = 0.490$, $p = 0.486$, and explained only 0.5% of the variance in perceived authenticity ($R^2 = 0.005$, Adjusted $R^2 = -0.005$). The constant term was positive and highly significant ($B = 4.223$, $p < 0.001$), while gender was not a significant predictor ($B = -0.158$, $Beta = -0.072$, $p = 0.486$), indicating no significant difference between male and female participants in their ratings of the drama’s historical scene authenticity. No multicollinearity issues were detected ($VIF = 1.000$), and the D-W statistic of 1.967 suggested no problematic autocorrelation in the residuals.

Table 7 Perceived Quality: Linear Regression Analysis Results for “The actors’ performances move me.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.333	0.263	-	16.464	0.000**	-	-
Gender	-0.010	0.151	-0.007	-0.067	0.947	1.000	1.000
R^2	0.000						
Adjusted R^2	-0.011						
F	$F(1,93)=0.004, p=0.947$						
D-W statistic	2.132						
Dependent variable= Perceived Quality:Moving performance							
* $p < 0.05$ ** $p < 0.01$							

Table 7 presents the results of a linear regression analysis examining gender as a predictor of perceived emotional impact of actors’ performances in the micro-drama. The overall regression model was not statistically significant, with $F(1, 93) = 0.004$, $p = 0.947$, and explained 0% of the variance in perceived emotional impact ($R^2 = 0.000$, Adjusted $R^2 = -0.011$). The constant term was positive and highly significant ($B = 4.333$, $p < 0.001$), while gender was not a significant predictor ($B = -0.010$, $Beta = -0.007$, $p = 0.947$), indicating no significant difference between male and female participants in their ratings of how moving the actors’ performances were. No

multicollinearity issues were detected (VIF = 1.000), and the D-W statistic of 2.132 suggested no problematic autocorrelation in the residuals.

Table 8 Perceived Quality: Linear Regression Analysis Results for “The overall production quality is acceptable”.

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.				VIF	Tolerance
Constant	4.360	0.285	-	15.275	0.000**	-	-
Gender	-0.102	0.164	-0.064	-0.620	0.537	1.000	1.000
R ²	0.004						
Adjust R ²	-0.007						
F	F (1,93)=0.384,p=0.537						
D-W statistic	2.073						
Dependent variable= Perceived Quality:Acceptable overall production quality							
* p<0.05 ** p<0.01							

Table 8 presents the results of a linear regression analysis examining gender as a predictor of perceived acceptability of the micro-drama’s overall production quality. The overall regression model was not statistically significant, with F(1, 93) = 0.384, p = 0.537, and explained only 0.4% of the variance in perceived production quality (R² = 0.004, Adjusted R² = -0.007). The constant term was positive and highly significant (B = 4.360, p < 0.001), while gender was not a significant predictor (B = -0.102, Beta = -0.064, p = 0.537), indicating no significant difference between male and female participants in their ratings of the drama’s overall production quality. No multicollinearity issues were detected (VIF = 1.000), and the D-W statistic of 2.073 suggested no problematic autocorrelation in the residuals.

Table 9 Independent t-test analysis of the emotional identification dimension

	Analysis Item	Item	N	M	SD	Mean Difference	Difference 95% CI	t	df	p
Emotional Identity	Touching image of Liu Hulan	1.0	31	4.35	0.61	0.07	-0.219 ~ 0.366	0.500	93.000	0.618
		2.0	64	4.28	0.70					
		total	95	4.31	0.67					
	Increased admiration	1.0	31	4.29	0.69	0.18	-0.176 ~ 0.538	1.008	93.000	0.316
		2.0	64	4.11	0.88					
		total	95	4.17	0.82					
	Aroused patriotic feelings	1.0	31	4.32	0.87	0.04	-0.307 ~ 0.390	0.236	93.000	0.814
		2.0	64	4.28	0.77					
		total	95	4.29	0.80					
	Resonance with spirit	1.0	31	4.00	0.93	0.02	-0.428 ~ 0.459	0.070	93.000	0.944
		2.0	64	3.98	1.06					
		total	95	3.99	1.02					
* p<0.05 ** p<0.01 1.0=Male 2.0=Female										

The results of independent samples t-tests for the four items in the Emotional Identity dimension showed that there were no significant between-group differences in any item between male (n=31) and female (n=64) respondents (all ps > 0.05). All items achieved high overall mean scores (M = 3.99–4.31), indicating highly consistent evaluations of emotional identification with the micro-drama among audiences of different genders,

and the work has gained widespread recognition in conveying red emotional values and inspiring spiritual resonance.

Table 10 Emotional Identity: Linear Regression Analysis Results for “The image of Liu Hulan in the drama moves me”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.428	0.256	-	17.319	0.000**	-	-
Gender	-0.074	0.147	-0.052	-0.500	0.618	1.000	1.000
R ²	0.003						
AdjustR ²	-0.008						
F	F (1,93)=0.250,p=0.618						
D-Wstatistic	1.908						
Dependent variable= Emotional Identity:Touching image of Liu Hulan							
* p<0.05 ** p<0.01							

Table 10 presents the results of a linear regression analysis examining gender as a predictor of emotional identification with the touching image of Liu Hulan in the drama. The overall regression model was not statistically significant, with $F(1, 93) = 0.250$, $p = 0.618$, and explained only 0.3% of the variance in emotional identification ($R^2 = 0.003$, Adjusted $R^2 = -0.008$). The constant term was positive and highly significant ($B = 4.428$, $p < 0.001$), while gender was not a significant predictor ($B = -0.074$, $Beta = -0.052$, $p = 0.618$), indicating no significant difference between male and female participants in their ratings of how moving Liu Hulan’s portrayal was. No multicollinearity issues were detected ($VIF = 1.000$), and the D-W statistic of 1.908 suggested no problematic autocorrelation in the residuals.

Table 11 Emotional Identity: Linear Regression Analysis Results for “My admiration for Liu Hulan has deepened.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.471	0.312	-	14.327	0.000**	-	-
Gender	-0.181	0.180	-0.104	-1.008	0.316	1.000	1.000
R ²	0.011						
AdjustR ²	0.000						
F	F (1,93)=1.016,p=0.316						
D-Wstatistic	1.664						
Dependent variable= Emotional Identity:Increased admiration							
* p<0.05 ** p<0.01							

The results of the linear regression model with “deepened admiration for Liu Hulan” as the dependent variable and gender as the independent variable show that the overall model fit is poor: $F(1,93)=1.016$, $p=0.316$, $R^2=0.011$, and adjusted $R^2=0.000$, indicating that the model can only explain 1.1% of the variance in the dependent variable and is not statistically significant overall. Specifically, the unstandardized regression coefficient of gender on “deepened admiration” is $B=-0.181$ ($SE=0.180$), with a standardized coefficient $Beta=-0.104$, $t=-1.008$, $p=0.316$, which does not reach the significance level of 0.05, suggesting that there is no statistically significant difference

in the influence of gender on the deepening of the audience's admiration. Meanwhile, collinearity diagnostics show VIF=1.000 and Tolerance=1.000, indicating no multicollinearity issue, and the D-W statistic is 1.664, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 12 Emotional Identity: Linear Regression Analysis Results for “This drama has aroused my patriotic feelings.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.364	0.305	-	14.319	0.000**	-	-
Gender	-0.041	0.175	-0.024	-0.236	0.814	1.000	1.000
R ²	0.001						
Adjust R ²	-0.010						
F	F (1,93)=0.056,p=0.814						
D-W statistic	1.924						
Dependent variable = Emotional Identity:Aroused patriotic feelings							
* p<0.05 ** p<0.01							

The results of the linear regression model with “This drama has aroused my patriotic feelings” as the dependent variable and gender as the independent variable show that the overall model fit is extremely poor: F(1,93)=0.056, p=0.814, R²=0.001, and adjusted R²=-0.010, indicating that the model can only explain 0.1% of the variance in the dependent variable and is not statistically significant overall. Specifically, the unstandardized regression coefficient of gender on “aroused patriotic feelings” is B=-0.041 (SE=0.175), with a standardized coefficient Beta=-0.024, t=-0.236, p=0.814, which is far above the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on the arousal of the audience's patriotic feelings. Meanwhile, collinearity diagnostics show VIF=1.000 and Tolerance=1.000, indicating no multicollinearity issue, and the D-W statistic is 1.924, close to 2, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 13 Emotional Identity: Linear Regression Analysis Results for “The Lüliang spirit conveyed in the drama resonates with me.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	Beta			VIF	Tolerance
Constant	4.016	0.388	-	10.339	0.000**	-	-
Gender	-0.016	0.223	-0.007	-0.070	0.944	1.000	1.000
R ²	0.000						
Adjust R ²	-0.011						
F	F (1,93)=0.005,p=0.944						
D-W statistic	2.028						
Dependent variable=Emotional Identity:Resonance with spirit							
* p<0.05 ** p<0.01							

The results of the linear regression model with “The Lüliang spirit conveyed in the drama resonates with me” as the dependent variable and gender as the independent variable show that the overall model is not statistically

significant: $F(1,93)=0.005$, $p=0.944$, $R^2=0.000$, and adjusted $R^2=-0.011$, indicating that the model can barely explain the variance in the dependent variable. Specifically, the unstandardized regression coefficient of gender on “resonance with the Lvliang spirit” is $B=-0.016$ ($SE=0.223$), with a standardized coefficient $Beta=-0.007$, $t=-0.070$, $p=0.944$, which is far above the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on the audience’s resonance with the Lvliang spirit. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 2.028, close to 2, suggesting no first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 14 Independent t-test analysis of the cognitive enhancement dimension

	Analysis Item	Item	N	M	SD	Mean Difference	Differen- ce95% CI	t_{\square}	df	p_{\square}
Cognitive Improvement	Better understanding of spirit	1.0	31	4.26	0.89	0.02	-0.373 ~ 0.420	0.119	93.000	0.906
		2.0	64	4.23	0.92					
		total	95	4.24	0.91					
	Deeper understanding of spirit	1.0	31	3.94	1.21	-0.35	-0.780 ~ 0.088	-1.582	93.000	0.117
		2.0	64	4.28	0.88					
		total	95	4.17	1.01					
	Increased interest in red culture	1.0	31	4.23	0.88	-0.13	-0.459 ~ 0.192	-0.815	93.000	0.417
		2.0	64	4.36	0.68					
		total	95	4.32	0.75					
* $p<0.05$ ** $p<0.01$ 1.0=Male 2.0=Female										

The results of independent samples t-tests for the three items in the Cognitive Improvement dimension (male: $n=31$; female: $n=64$; total $N=95$) showed no statistically significant between-group differences in any item (all $ps > 0.05$). All items achieved high overall mean scores ($M = 4.17-4.32$), indicating highly consistent evaluations of cognitive improvement among audiences of different genders, and the work has gained widespread recognition in deepening the understanding of red spirit and stimulating interest in red culture.

Table 15 Cognitive Improvement: Linear Regression Analysis Results for “I have a better understanding of Liu Hulan’s deeds.”

	Unstandardized coefficient		Standardized coefficient	t_{\square}	p_{\square}	Collinearity diagnostics	
	B_{\square}	$S.E._{\square}$	$Beta_{\square}$			VIF_{\square}	Tolerance
Constant	4.282	0.347	-	12.339	0.000**	-	-
Gender	-0.024	0.200	-0.012	-0.119	0.906	1.000	1.000
R^2_{\square}	0.000						
$AdjustR^2_{\square}$	-0.011						
F_{\square}	$F(1,93)=0.014, p=0.906$						
D-W statistic	2.247						
Dependent variable=Cognitive Improvement : Better understanding of spirit							
* $p<0.05$ ** $p<0.01$							

The results of the linear regression model with “I have a better understanding of Liu Hulan’s deeds” as the dependent variable and gender as the independent variable show that the overall model is not statistically

significant: $F(1,93)=0.014$, $p=0.906$, $R^2=0.000$, and adjusted $R^2=-0.011$, indicating that the model can barely explain the variance in the dependent variable. Specifically, the unstandardized regression coefficient of gender on “cognitive improvement (better understanding of Liu Hulan’s deeds)” is $B=-0.024$ ($SE=0.200$), with a standardized coefficient $Beta=-0.012$, $t=-0.119$, $p=0.906$, which is far above the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on the audience’s cognitive improvement. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 2.247, close to 2, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 16 Cognitive Improvement: Linear Regression Analysis Results for “I have a deeper understanding of the connotation of the Lüliang spirit.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	SE	$Beta$			VIF	$Tolerance$
Constant	3.590	0.380	-	9.448	0.000**	-	-
Gender	0.346	0.219	0.162	1.582	0.117	1.000	1.000
R^2	0.026						
$AdjustR^2$	0.016						
F	$F(1,93)=2.502, p=0.117$						
D-W statistic	1.966						
Dependent variable= Cognitive Improvement : Deeper understanding of spirit							
* $p<0.05$ ** $p<0.01$							

The results of the linear regression model with “I have a deeper understanding of the connotation of the Lüliang spirit” as the dependent variable and gender as the independent variable show that the overall model fit is poor: $F(1,93)=2.502$, $p=0.117$, $R^2=0.026$, and adjusted $R^2=0.016$, indicating that the model can only explain 2.6% of the variance in the dependent variable and is not statistically significant overall. Specifically, the unstandardized regression coefficient of gender on “deeper understanding of the connotation of the Lüliang spirit” is $B=0.346$ ($SE=0.219$), with a standardized coefficient $Beta=0.162$, $t=1.582$, $p=0.117$, which does not reach the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on this dimension of the audience’s cognitive improvement. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 1.966, close to 2, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 17 Cognitive Improvement: Linear Regression Analysis Results for “I have become more interested in red culture.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	SE	$Beta$			VIF	$Tolerance$
Constant	4.092	0.285	-	14.368	0.000**	-	-
Gender	0.134	0.164	0.084	0.815	0.417	1.000	1.000
R^2	0.007						
$AdjustR^2$	-0.004						
F	$F(1,93)=0.664, p=0.417$						
D-W 值	2.110						

Dependent variable =Cognitive Improvement : Increased interest in red culture	
* $p < 0.05$ ** $p < 0.01$	

The results of the linear regression model with “I have become more interested in red culture” as the dependent variable and gender as the independent variable show that the overall model is not statistically significant: $F(1,93)=0.664$, $p=0.417$, $R^2=0.007$, and adjusted $R^2=-0.004$, indicating that the model can only explain 0.7% of the variance in the dependent variable. Specifically, the unstandardized regression coefficient of gender on “increased interest in red culture” is $B=0.134$ ($SE=0.164$), with a standardized coefficient $Beta=0.084$, $t=0.815$, $p=0.417$, which is far above the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on the audience’s increased interest in red culture. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 2.110, close to 2, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 18 Independent t-test analysis of sharing willingness

	Analysis Item	Item	N	M	SD	Mean Difference	Difference 95% CI	$t \square$	df	$p \square$	
Sharing Intention	Willing to recommend to friends	1.0	31	4.19	0.95	-0.01	-0.368 ~ 0.349	-0.053	93.000	0.958	
		2.0	64	4.20	0.76						
		total	95	4.20	0.82						
	Willing to repost on platforms	1.0	31	4.48	0.63	0.16	-0.187 ~ 0.498	0.902	93.000	0.369	
		2.0	64	4.33	0.86						
		total	95	4.38	0.79						
	Hope for more student-made short dramas	1.0	31	4.35	0.71	0.07	-0.219 ~ 0.366	0.500	93.000	0.618	
		2.0	64	4.28	0.65						
		total	95	4.31	0.67						
	* $p < 0.05$ ** $p < 0.01$ 1.0=Male 2.0=Female										

The results of independent samples t-tests for the three items in the Sharing Intention dimension (male: $n=31$; female: $n=64$; total $N=95$) showed no statistically significant between-group differences in any item (all $ps > 0.05$). All items achieved high overall mean scores ($M = 4.20-4.38$), indicating highly consistent evaluations of sharing intention among audiences of different genders, and the work has effectively stimulated audiences’ willingness to spread the content and gained widespread support for student-created red-themed works.

Table 19 Sharing Intention: Linear Regression Analysis Results for “I am willing to recommend this drama to my friends.”

	Unstandardized coefficient		Standardized coefficient	$t \square$	$p \square$	Collinearity diagnostics	
	$B \square$	S.E.	$Beta \square$			$VIF \square$	\square Tolerance
Constant	4.184	0.314	-	13.345	0.000**	-	-
Gender	0.010	0.180	0.006	0.053	0.958	1.000	1.000
$R^2 \square$	0.000						
$AdjustR^2 \square$	-0.011						
$F \square$	$F(1,93)=0.003, p=0.958$						
D-	1.771						

Wstatistic	
Dependent variable = Sharing Intention : Willing to recommend to friends	
* $p < 0.05$ ** $p < 0.01$	

The results of the linear regression model with “I am willing to recommend this drama to my friends” as the dependent variable and gender as the independent variable show that the overall model is not statistically significant: $F(1,93)=0.003$, $p=0.958$, $R^2=0.000$, and adjusted $R^2=-0.011$, indicating that the model can barely explain the variance in the dependent variable. Specifically, the unstandardized regression coefficient of gender on “willingness to recommend and share” is $B=0.010$ ($SE=0.180$), with a standardized coefficient $Beta=0.006$, $t=0.053$, $p=0.958$, which is far above the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on the audience’s willingness to recommend and share. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 1.771, close to 2, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 20 Sharing Intention : Linear Regression Analysis Results for “I will share this drama on platforms”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	$Beta$			VIF	Tolerance
Constant	4.640	0.300	-	15.467	0.000**	-	-
Gender	-0.156	0.173	-0.093	-0.902	0.369	1.000	1.000
R^2	0.009						
Adjust R^2	-0.002						
F	$F(1,93)=0.814, p=0.369$						
D-W statistic	1.599						
Dependent variable= Sharing Intention : Willing to repost on platforms							
* $p < 0.05$ ** $p < 0.01$							

The results of the linear regression model with “I will share this drama on platforms” as the dependent variable and gender as the independent variable show that the overall model fit is poor: $F(1,93)=0.814$, $p=0.369$, $R^2=0.009$, and adjusted $R^2=-0.002$, indicating that the model can only explain 0.9% of the variance in the dependent variable and is not statistically significant overall. Specifically, the unstandardized regression coefficient of gender on "willingness to share on platforms" is $B=-0.156$ ($SE=0.173$), with a standardized coefficient $Beta=-0.093$, $t=-0.902$, $p=0.369$, which does not reach the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on the audience’s willingness to share on platforms. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 1.599, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

Table 21 Sharing Intention: Linear Regression Analysis Results for “I hope to see more red-themed micro-dramas filmed by college students themselves.”

	Unstandardized coefficient		Standardized coefficient	t	p	Collinearity diagnostics	
	B	S.E.	$Beta$			VIF	Tolerance
Constant	4.428	0.256	-	17.319	0.000**	-	-
Gender	-0.074	0.147	-0.052	-0.500	0.618	1.000	1.000

R^2	0.003
Adjusted R^2	-0.008
F	$F(1,93)=0.250, p=0.618$
D-W statistic	1.962
Dependent variable=Sharing Intention : Hope for more student- made short dramas	
* $p < 0.05$ ** $p < 0.01$	

The results of the linear regression model with “I hope to see more red-themed micro-dramas filmed by college students themselves” as the dependent variable and gender as the independent variable show that the overall model is not statistically significant: $F(1,93)=0.250, p=0.618, R^2=0.003$, and adjusted $R^2=-0.008$, indicating that the model can only explain 0.3% of the variance in the dependent variable. Specifically, the unstandardized regression coefficient of gender on “the hope for more student-made red-themed micro-dramas” is $B=-0.074$ ($SE=0.147$), with a standardized coefficient $Beta=-0.052, t=-0.500, p=0.618$, which is far above the significance level of 0.05, suggesting that there is no statistically significant difference in the influence of gender on this dimension of the audience’s sharing intention. Meanwhile, collinearity diagnostics show $VIF=1.000$ and $Tolerance=1.000$, indicating no multicollinearity issue, and the D-W statistic is 1.962, close to 2, suggesting no obvious first-order autocorrelation in the residuals, so all the assumptions of the regression model are satisfied.

DISCUSSION

This study conducted independent-samples t-tests on college students’ perceived quality, emotional identification, cognitive improvement, and sharing intention toward the red-themed micro-drama. The results showed that only perceived clarity of the plot exhibited a significant gender difference ($p < 0.05$), with male students scoring significantly higher than female students. No significant gender differences were found in any other dimensions, including perceived authenticity of historical scenes, acting performance, production quality, emotional identification, cognitive improvement, and sharing intention (all $p > 0.05$). Overall, male and female college students showed high consistency in acceptance, emotional resonance, cognitive gains, and communication willingness toward the red-themed micro-drama, with only a slight difference in narrative comprehension.

Among the four indicators of perceived quality, “the plot is clear and easy to understand” showed a significant gender difference ($t = 2.058, p = 0.042$). Male students ($M = 4.39, SD = 0.62$) scored significantly higher than female students ($M = 3.98, SD = 1.00$), with a small-to-medium effect size (Cohen’s $d = 0.450$). For perceived authenticity of historical scenes, emotional appeal of acting, and overall production quality, all p-values were greater than 0.05, indicating no statistically significant differences. This suggests that male and female students held consistent evaluations of the drama’s production standard, performance, and scene restoration, differing only slightly in subjective perceptions of narrative logic and plot comprehension.

All items measuring emotional identification and cognitive improvement showed no significant gender differences (all $p > 0.05$). Specifically, emotional identification includes being moved by the image of Liu Hulan, enhanced admiration, aroused patriotism, and resonance with the Lüliang Spirit; cognitive improvement covers better understanding of Liu Hulan’s deeds, deeper insight into the Lüliang Spirit, and increased interest in red culture. The mean scores of both groups were above 4.0, indicating that the red-themed micro-drama stably elicited emotional resonance and cognitive gains among college students, regardless of gender. Both male and female students were emotionally engaged by the red theme and achieved improvements in knowledge and values.

Similarly, none of the three dimensions of sharing intention showed significant gender differences (all $p > 0.05$), including willingness to recommend the drama to friends, repost it on social media platforms, and expect more student-produced short dramas. The mean scores for “recommending to friends” and “reposting on platforms” both exceeded 4.1, revealing a strong overall willingness of active communication among college students, with highly consistent sharing behaviors and content preferences across genders. This implies that the red-themed micro-drama has strong self-propagation potential and does not require gender-differentiated communication strategies.

The results of this study are highly consistent with the synergistic mechanism of “satisfying rhythm” and “emotional resonance” in red-themed micro-dramas proposed by Zhang (2026), confirming that emotional resonance is the core driver for college students to accept red-themed content. Furthermore, this study provides empirical evidence for low-budget student-produced red-themed micro-dramas: despite limited production resources, identity recognition from “peer creation” effectively compensates for the lack of professional production, enabling the work to still achieve high emotional identification and sharing intention. From the platform perspective, the drama demonstrates favorable playback volume and satisfactory completion rate, reflecting sound communication performance. College students show high levels of awareness, emotional identification, and sharing intention toward the drama, with positive responses in both affective and behavioral dimensions. Except for perceived plot clarity, the acceptance of the red-themed micro-drama shows no significant gender differences, and the reception characteristics are highly similar between male and female audiences.

These findings carry clear practical implications for the creation and communication of red-themed micro-dramas. First, emotional points should be placed upfront to establish emotional connection within the first 30 seconds of the opening, so as to capture audience attention and improve completion rate. Second, youth-oriented discourse should be strengthened by adopting expressions and narrative styles close to college students to lower the threshold of acceptance. Third, under low-cost conditions, priority should be given to ensuring narrative clarity and emotional appeal rather than sophisticated production techniques. Fourth, guided discussions in the comment area can enhance interaction and secondary communication by inspiring thinking about revolutionary spirits and values. Fifth, the identity label of “created by peers” should be highlighted to strengthen the sense of identification and immersion among college students.

CONCLUSION

Based on platform data analysis and questionnaire survey, this study finds that college students show a high overall acceptance of the red-themed short drama “Liu Hulan”, with significant gender differences only in the dimension of plot clarity. College students’ viewing and sharing intention toward the short drama are mainly driven by emotional identification rather than technical production indicators. Low-budget red short dramas created by college students can still achieve good communication effects through peer identity and emotional resonance. This study provides empirical evidence for student teams to create red-themed short dramas under limited conditions.

This study has important theoretical and practical contributions. Theoretically, it provides quantitative empirical data on youth acceptance of red short dramas, making up for the lack of empirical support in existing qualitative-oriented research. Practically, it offers specific and feasible optimization suggestions for college students creating red-themed short dramas.

This study has several limitations. The sample adopts convenient sampling and only covers students from a single university, so caution should be taken when generalizing the conclusions. The data come from only one

platform without cross-platform comparison. As a cross-sectional study, it cannot infer causal relationships between variables. In addition, the low-budget production may affect the universality of the results to some extent.

Future research can be expanded in four directions: expanding the sample scope to conduct a national multi-university survey; using quasi-experimental designs to test causal effects; carrying out cross-platform comparative data analysis; and further exploring the long-term impact mechanism of red short dramas on youth national identity and values.

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APPENDIX

Questionnaire on College Students' Acceptance of Red Micro-dramas About Lüliang Spirit and Liu Hulan's Deeds

Part 1: Viewing Confirmation

Q1. Have you watched the above micro-drama completely?

A. Yes

B. No (If you choose "No", the questionnaire will end automatically.)

Part 2: Basic Information

Q2. Your gender:

A. Male

B. Female

Q3. Your grade:

A. Freshman

B. Sophomore

C. Junior

D. Senior

E. Postgraduate and above

Q4. Your major category:

A. Humanities and Social Sciences

B. Science and Engineering

C. Arts and Physical Education

D. Others

Q5. Your political affiliation:

A. CPC Member (including Probationary Party Member)

B. CYLC Member

C. General Public

D. Others

Q6. Do you often watch red-themed short videos (such as revolutionary history, heroic figures, etc.)?

- A. Never
- B. Rarely
- C. Sometimes
- D. Often
- E. Always

Part 3: Evaluation of Viewing Experience

Please choose the most appropriate option based on your true feelings after watching the micro-drama.

(1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

(1) Perceived Quality

Q7. The plot of this drama is clear and easy to understand.

Q8. The historical scenes in the drama feel real to me.

Q9. The actors' performances can move me.

Q10. The overall production level (picture, sound effect, editing) is acceptable.

(2) Emotional Identity

Q11. The image of Liu Hulan in the drama touches me.

Q12. After watching, my admiration for Liu Hulan has increased.

Q13. This drama has aroused my patriotic feelings.

Q14. The Lüliang Spirit conveyed in the drama (hard work, overall consideration, etc.) resonates with me.

(3) Cognitive Improvement

Q15. Through this drama, I have a better understanding of Liu Hulan's deeds.

Q16. Through this drama, I have a deeper understanding of the connotation of the Lüliang Spirit.

Q17. This drama has aroused my greater interest in red culture.

(4) Sharing Intention

Q18. I am willing to recommend this drama to my friends.

Q19. I will repost this drama on WeChat Moments, Douyin and other platforms.

Q20. I hope to see more red micro-dramas made by college students.