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Exploring Communication Strategies for Niche Sports on Social Media Platforms Through Framing Theory: A Case Study of Rhythmic Gymnastics

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Abstract. Based on framing theory, this study takes rhythmic gymnastics (RG) as an example to explore the communication strategies of niche sports on social media platforms. Through semi-structured interviews and thematic analysis, the research constructs a "three-level frame of video" model tailored for short video communication. This model comprises a high-level frame (media attributes and source characteristics), a mid-level frame (content and presentation styles), and a low-level frame (symbolic features). The findings reveal that audiences prefer accessing dynamic video content on platforms like "xiaohongshu", favor competition footage, training sessions, and behind-the-scenes content published by self-media accounts, and are sensitive to the synergistic effects of multimodal symbols. Case studies further validate that high-quality video content requires a combination of authority, entertainment, and creative expressions. This research provides theoretical support and practical suggestions for the social media communication of niche sports like rhythmic gymnastics, addressing the current gap in studies on short video communication.

Keywords: Framing theory, rhythmic gymnastics, semi-structured interviews, social media, short video.

1. Introduction

As an Olympic sport that uniquely blends athleticism and artistry, Rhythmic gymnastics has long been constrained by communication barriers due to its technical complexity and intricate rule systems, resulting in limited public engagement. The prevalence of social media and short-video platforms has created unprecedented opportunities for niche sports to break through traditional communication barriers. Based on framing theory, this study creatively reconstructs Tsang Kwok-jen's "three-level framing theory" through semi-structured interviews and thematic analysis, establishing the "three-level video frame," which is specifically tailored for short video communication. From the perspectives of audience preferences and communication content, this study systematically investigates the communication effectiveness of rhythmic gymnastics across social media platforms, aiming to establish an optimizing strategy for its popularization in the digital

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era. The findings not only enhance rhythmic gymnastics' communication effectiveness but also offer valuable insights for promoting other niche sports on social media.

2. Literature review

2.1. Framing theory

In 1955, Bateson first introduced "framing" as an academic concept, defining it as individuals' mental cognitive structures for interpreting social reality, emphasizing that event perception relies on specific interpretive frameworks [1]. Goffman later applied this concept to sociology, viewing framing's role as a cognitive structure through which people categorize, organize, and interpret lived experiences [2]. Gitlin expanded framing theory to communication studies [3]. He argued that situational understanding and behavior are fluid, heavily influenced by adopted frames [3]. By the late 20th century, framing theory was introduced to China's communication academia. Tsang Kuo-jen synthesized prior research to propose a "three-level framing model" (high, middle, and low) for analyzing how news reports construct social reality [4]. This model examines:

The theory emphasizes not only the surface-level expressions but also the constraining relationships between different framing levels. The high-level frame establishes an event's overarching definition, determining the fundamental stance, core issues, and narrative tone. The mid-level frame is a detailed elaboration of an event, while the low-level frame focuses on symbolic representations that amplify or attenuate meanings through specific rhetorical and discursive strategies.

2.2. Research overview

2.2.1. Communication on social media

Regarding the characteristics and functions of social media platforms, scholars such as Tian Zhihui have highlighted their interactive nature, noting that the "push" feature enables personalized news acquisition for users [5]. Peng Qingfeng and Gu Jie argue that the "traffic-first" characteristic of social media has influenced the ways of news framing [6].

In the application of social media for sports culture dissemination, the primary focus lies in competitive sports event, marketing campaigns, and promotional activities, with increasingly diversified content [7]. Li Zhenhui and Qin Yaxi highlight that social media's interactive features significantly enhance audience engagement [8]. Wang et al. demonstrate that social media platforms have introduced innovative communication modes and narrative styles to sports culture dissemination [9].

In summary, scholars have progressively explored the dissemination of various sports on social media, proposing corresponding communication strategies, thereby establishing a solid foundation for the popularization of rhythmic gymnastics on social media.

2.2.2. Niche sports

Wang Meiling defines niche sports as distinctive athletic activities characterized by limited participation and popularity, yet possessing both social and recreational attributes [10]. Meanwhile, the rise of social media has promoted their development, satisfying public demand for novelty while enriching the sports culture ecosystem [11].

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Although rhythmic gymnastics has become an Olympic sport, it remains a niche sport in China with limited participation and viewership. The growing influence of social media and evolving public interests may help it overcome current limitations and bring new vitality to the sports industry.

Current domestic research on rhythmic gymnastics spans multiple dimensions, including techniques, rules, psychology, and pedagogy. Dong Yichen proposes enhancing artistic expression to meet international standards [12]. Hu Xue and He Yuxin highlight the unique integration of body movements and apparatus, showcasing multifaceted aesthetic value of rhythmic gymnastics [13]. However, Kong Fanqi notes that the high technical barriers and complex rules of rhythmic gymnastics limit its popularization [14].

In the new media era, Chinese RG organizations are leveraging platforms like wechat official accounts and weibo to share professional knowledge, promote its value, and expand the audience [15]. Even though new media technologies break spatial-temporal barriers to convey its cultural significance, rhythmic gymnastics still faces communication challenges [15]. Therefore, studying communication strategies on social media is crucial for its sustainable development.

In summary, current research on rhythmic gymnastics has notable limitations. First, existing studies mainly focus on its technical regulations and communication status. Despite some scholars have proposed suggestions on optimization, they lack systematic theoretical foundations in communication studies. Second, although framing theory is a cornerstone of communication study, prior applications have been largely confined to traditional news text analysis, with insufficient exploration of communication in short videos. This study adapts the “three-level framing theory” through semi-structured interviews from the audience perspective, focusing on the video-based communication of rhythmic gymnastics, and systematically exploring its communication strategies on social media, therefore addressing the research gaps in both theoretical application and media format dimensions.

3. Methodology

3.1. Semi-structured interview

To understand audience preferences regarding the communication of rhythmic gymnastics on social media, this study conducted semi-structured interviews with 20 RG enthusiasts, sampled proportionally (adolescents 12-18: youth 19-34: middle-aged 35-55 = 1:6:3) based on the follower composition of influential sports blogger “jiakechongzhi” (more than 300,000 followers across platforms as of April 18, 2025). The interviews yielded preference data of three dimensions: communication formats, content types, and symbolic representations.

3.2. Thematic analysis

Braun and Clarke define thematic analysis as a systematic qualitative method that identifies, analyzes, and interprets key themes through in-depth text analysis [16]. Specifically, this approach employs coding and categorization to synthesize qualitative data, ultimately extracting core themes that address research questions.

The six-phase thematic analysis procedure comprises: (1) acquainting with data, (2) generating initial codes, (3) identifying themes, (4) reviewing themes, (5) defining themes, and (6) writing the report [16]. This analytical procedure is not linear but rather a recursive process where researchers may revisit earlier phases based on new insights, ensuring methodological rigor.

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Applying this approach, this study systematically categorized interview findings into core themes. On the one hand, the analysis empirically validates the "three-level frame of video" from audience perspectives. On the other hand, it provides an optimization guide based on user needs.

4. Discussion

4.1. Semi-structured interview

Following the six-phase thematic analysis procedure, this study ultimately identified three core themes: (1) preferences for media platforms and formats, (2) preferences for content types and presentation styles, and (3) preferences for multimodal symbols in communication. The key findings are as follows:

4.1.1. Preferences for media platforms and formats

To examine participants' preferences regarding media platforms and formats, this study quantified mentions of three key aspects in interview responses: "social media platforms," "content formats," and "content sources." According to the data, first, "xiaohongshu" emerged as the predominant platform for accessing rhythmic gymnastics information, mentioned 24 times by all 20 participants. Second, regarding content formats, "video" showed clear appeal with 27 mentions, significantly outperforming static formats like "image" or "article". Third, concerning source preferences, individual bloggers received 18 mentions and self-media accounts 14 mentions, whereas official accounts and news media were only referenced 4 and 2 times respectively, indicating a marked preference for non-official sources.

Analysis of participant responses reveals two core drivers behind these preferences: multidimensional presentation of RG's dynamic aesthetics, and enhanced psychological proximity. Firstly, video dynamics comprehensively showcases RG's fusion of power and grace. Compared with static images, videos not only present the fluidity and rhythm of movements, but also highlight the technical details in RG through professional shooting techniques such as multi-angle shots and slow-motion playback. In addition, videos provide synchronized audiovisual stimulation—where music, movement, apparatus, and costume colors achieve a immersive experience together. As Participant 1 noted, "Videos undeniably is the most intuitive way for appreciating rhythmic gymnastics," with Participant 2 adding, "They provide stronger emotional impact and multidimensional information." Secondly, self-media videos effectively eliminate the sense of distance in professional events by making the content accessible to the general public. These videos balance major events, e.g. Olympic Games, with training diaries and behind-the-scenes footage. For enthusiasts, they offer skill-learning resources; for general public, the daily records are free from the authority and alienation of high-level events, which narrowing the distance between the sport itself and the audience.

4.1.2. Preferences for content types and presentation styles

Theme two manifests in dual dimensions: content selection preferences and aesthetic demands for presenting modes of videos. Regarding content, participants showed strong interest in both competition and training, extending beyond domestic athletes to international contexts. They expressed desire to finds regional variations in performance techniques and training methods through videos, seeking to compare stylistic differences across training systems. As Participant 7 mentioned: "I particularly enjoy watching athletes from different provinces, countries, and training

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systems...and am curious about how age groups and regions influence training approaches." This reflects audiences' pursuit of technical and cultural diversity beyond mere competitive outcomes. Concerning presenting modes, viewers showed greater receptivity to professionally edited videos than raw footage. Strategic editing techniques, e.g. highlighting key moments and incorporating slow-motion replays, were found to amplify artistic impact and accessibility. Participant 3 noted: "When bloggers compile highlights or use slow-motion, it helps general public instantly grasp RG's beauty." Such optimization not only elevates aesthetic communication but also caters to modern audiences' needs for efficient information processing and immersive viewing experiences.

4.1.3. Preferences for multimodal symbols in communication

Theme three demonstrates audience's preferences for multimodal symbols in communication (language, auditory, visual) in video content. Linguistically, all participants showed high sensitivity to language symbols like video titles and tags, which served as primary filters for content selection. Notably, some participants actively associated specific language symbols with their social identities, as Participant 8 explained: "I prioritize posts mentioning my favorite athletes or the team of my hometown in titles—such keywords immediately capture my attention." This actually reflects the process in which the audience makes group belonging and identity recognition through language symbols. The interviews further highlighted the amplified impact of multimodal synergy. When language, auditory, and visual symbols maintained emotional consistency, they significantly enhanced content comprehension and aesthetic appreciation. Participant 9 mentioned: "Bloggers combine slow-motion replays with matching visual effects and background music, creating amazing presentations that vividly show RG's beauty."

The findings of the semi-structured interviews reveal that the communication effect of rhythmic gymnastics on social media is significantly influenced by media attributes, presentation formats, expressive strategies, and symbolic systems. These elements collectively shape content production and ultimately determine communication effect. To systematically decode this mechanism, this study adapted Tsang Kuo-jen's "three-level framing theory", reconstructing the three empirically derived core themes into a "three-level frame of video" for sports communication (Table 1).

Table 1: Three-level frame of video

High-level frame	media attributes, source characteristics
Mid-level frame	content and presentation (video length, shooting techniques, editing styles, etc.)
Low-level frame	symbolic features (textual, visual, auditory symbols)

4.2. Case analysis

Guided by the reconstructed "three-level video frame of video", this study analyzes three representative rhythmic gymnastics videos from "xiaohongshu" (ranked top-3 by likes as of April 21, 2025, with 547000, 132000, 86000 engagements). These representative cases exemplify effective communication strategies.

The first case study analyzes the video "Anastasia: The Comeback". From a high-level framing perspective, this content was published on August 14, 2024, by a sports influencer account, showing Russian coach Anastasia's pivotal role in leading China's national team to Olympic gold at Paris 2024. The creator strategically utilized the interactive tagging system of "Xiaohongshu", employing tags like "Olympic Gold Coach" and "Comeback" to effectively increase the exposure of the

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content. From a mid-level framing perspective, the video employs a three-phase narrative structure "predicament - turning point - climax". Meanwhile, the scenes of Anastasia's teaching, and the Chinese team winning the championship were cross-edited together, accompanied by the narration, to assist in presenting the storyline. From a low-level framing perspective, Representative textual symbols appeared in the video title and the narration. The phrase "the comeback" in the title conveys the ups and downs of the coach's personal career but also symbolizes the determination of the Chinese team to break the medal drought, successfully evoking the collective memory and emotional resonance of the audience. Meanwhile, the repeated expressions such as "the first gold medal in the history of the Asian Olympics" and "a historic breakthrough in rhythmic gymnastics" in the narration have constructed a "milestone" narrative framework.

The second video, titled "Graceful 'Next-Level' Performance at Zhejiang Normal University Sports Day: Former National Team Member Shang Rong Stuns Audience with Ribbon", was published in November 2024 by "8 Degrees Video" - Zhejiang Radio and TV Group's official account. Creators fully leverage the authority of official media and, at the same time, combine tags such as "Campus Sports" and "Artistic Gymnastics Ceiling" to achieve an organic integration of professional content and mass communication. From a mid-level framing perspective, the video highlights the athlete's professionalism by sequencing high-difficulty ribbon maneuvers while omitting transitional movements, creating a concentrated showcase of skills. The alternation between slow-motion and close-up shots simultaneously demonstrates professional excellence and aesthetic value. From a mid-level framing perspective, the title's innovative use of the internet slang "next-level" "ceiling" conveys the ultimate beauty of rhythmic gymnastics, while resonating with younger audiences. In terms of the application of auditory symbols, the background sound of the video interview uses certain appealing expressions, such as "I hope everyone will pay more attention, have more people join in, feel beauty, become beauty, spread beauty, and pass on beauty", elevating the sports performance to aesthetic education and effectively facilitating public engagement.

The third case study analyzes the video "The Female Star's Stunning Rhythmic Gymnastics". From a high-level framing perspective, this video was released by a top entertainment influencer account, featuring highlights from the popular variety show Supernova Games. Creators accurately grasp the cross-border communication characteristics of entertainment and sports, apply entertainment tags such as "Female Star", and combine cross-field tags such as "Rhythmic Gymnastics Challenge", achieving a cross-field communication. From the perspective of the middle-level framework, the video selects celebrities who have received good responses in the TV show, and clips their "highlight moments" together, leveraging the popularity of the celebrities to attract more viewers. From a low-level framework perspective, the video incorporates Internet buzzwords such as "high-quality performance" into its narration, using a youthful expression to reduce professional barriers. The language symbols, such as "so beautiful" and "fairy" in the video subtitles, help to visually reinforce the aesthetic value.

5. Conclusion

In conclusion, this study employs framing theory to investigate communication strategies for niche sports like rhythmic gymnastics on social media, revealing key patterns in audience preferences for dynamic video content, self-media formats, and multimodal symbolism. Through reconstructing the "three-level video frame", the following optimization strategies are proposed:

First, prioritize platforms like "Xiaohongshu "where target audiences are concentrated, using short videos as the primary format while leveraging the complementary strengths of self-media and

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official accounts to maximize reach. Second, diversify content presentation by employing specialized editing techniques to highlight the sport's aesthetic and technical value, alongside emotional storytelling to enhance audience engagement. Additionally, strengthen the synergistic use of language, visual, and auditory symbols - particularly optimizing verbal elements in titles and narration. It's significant to use creative expressions that reduce cognitive barriers. Finally, strategic collaborations with celebrities, influencers and media can facilitate cross-field exposure, thus addressing general audience interests.

However, this study still has limitations. Future study could explore cultural variations in audience preferences and the impact of emerging technologies on niche sport communication, ultimately providing more comprehensive theoretical and practical guidance for sustainable development.

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