

Cross-cultural evaluation of visual attractiveness of gathering spaces around campus

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【研究の目的と内容】

Purpose of the research: This research aims to enhance the spatial and visual environment of Shimane University—particularly its Matsue Campus—to better support the everyday experiences of both Japanese and international students. By focusing on how students perceive and use gathering spaces, the study seeks to identify environmental factors that influence campus life, especially for those newly arriving from different cultural backgrounds. While the primary goal is to enrich student life at Shimane University, the insights gained can serve as a valuable reference for regional universities across Japan that are working to improve their appeal and inclusivity in remote settings.

Content of research: The research is structured in three key phases, addressing both physical and perceptual aspects of the campus environment:

Phase 1: Campus Survey and Identification of Key Spaces

We conducted an on-campus survey with 70 students—80% Japanese undergraduates and 20% international graduate students—to understand daily campus experiences. Students frequently pointed out three central gathering spots that naturally attract foot traffic due to their accessibility and proximity to daily amenities such as the library plaza or the Vivica Plaza. Another location in front of the Campus (Family Mart) due to the gathering of smoking people.

Phase 2: Development of Virtual Campus Model

A detailed virtual 3D model of the Matsue Campus was created, focusing on the three main gathering hubs. The model incorporates architectural, environmental, and functional details to simulate real-life experiences. Developing a virtual campus in a rural setting posed challenges due to limited available digital resources, outdated maps, and architectural records that had to be verified on-site.

Phase 3: Immersive Evaluation Preparation

The next step is to use virtual reality (via panoramic video renderings or VR goggles) to simulate student experiences and impressions of the campus environment. The goal is to test how prospective students—especially those unfamiliar with rural Japanese campuses—perceive the atmosphere, accessibility, and attractiveness of the university from a first-person perspective. A limitation we anticipate is students' varying levels of digital and VR literacy, which may affect their ability to engage with the virtual environments.

【研究の成果(本研究によって得られた知見、成果、論文、学会発表、外部資金への応募見込み等)】

Results of research: We have completed Phase 2 with the successful development of a detailed virtual model of the Matsue Campus, focusing on three key gathering hubs identified in earlier surveys. These spaces were frequently mentioned by students due to their central location and proximity to amenities such as the cafeteria, convenience store, and faculty buildings. Findings show that while Japanese students tend to prioritize functionality, convenience, and familiarity, international students place more emphasis on openness, visibility, and opportunities for social interaction. The virtual model simulates the campus's key physical and environmental features that found in the questionnaire and will serve as the foundation for immersive evaluations.

Phase 3 is currently in progress. We are preparing panoramic video renderings and a VR environment to simulate prospective students' experiences on campus from multiple cultural perspectives. This stage is particularly crucial for evaluating first impressions and spatial perceptions, especially for international students unfamiliar with rural Japanese campuses.

Challenges encountered so far include the limited number of international students at Shimane University, which makes it difficult to gather a wide range of cross-cultural input. Additionally, many local students have had limited international exposure, which can affect the variety of perspectives in the findings. Despite these limitations, the research has provided valuable insights into students' different expectations and preferences, and the immersive tools under development are expected to support future strategies for improving campus life and attracting a more diverse student body.

The research is planned to be presented at the Annual Conference of Architecture Institute of Japan (Chugoku branch) on March 2026.