# Multimodal Safety Alignment Generalization in Qwen2.5 Across RedBench and WildQA

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**Abstract**

This report synthesises findings from 7 peer-reviewed papers addressing the following research question: What is the cross-domain generalization of multimodal safety alignment in Qwen2.5 models when evaluated on both RedBench and WildQA benchmarks. 13 claims were extracted from source literature; 1 was independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Aligning Multimodal LLM with Human Preference: A Survey. Research question: What is the cross-domain generalization of multimodal safety alignment in Qwen2.5 models when evaluated on both RedBench and WildQA benchmarks?.

## 2 Methodology

Systematic literature search across multiple databases yielded 7 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 4.5/10.

## 3 Results

7 papers retrieved. 13 claims extracted; 1 independently verified. Quality review score: 4.5/10.

## 4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

## 5 Extracted Claims

| Claim | Verified | Confidence |
|---|---|---|
| MME-RealWorld, MMStar, MMBench, MMT-Bench, BLINK, MathVista, SQA3D, MMMU, MVBench, Mantis-Instruct are benchmarks for ev | × | 0.04 |
| Object HalBench, VideoHallucer, VALOR-Eval, POPE, HaELM, OpenCHAIR, GAVIE, AMBER, Mementos, MMHal-Bench, VLind-Bench, M- | × | 0.03 |
| AdvDiffVLM, RTVLM, VLGuard, MultiTrust, VLLM-safety-bench, MOSSBench, MM-RLHF-SafetyBench are benchmarks for evaluating | × | 0.05 |
| Q-Bench, LLVisionQA, LLDescribe, LLaVA-Bench-Wilder, LiveBench, Vibe-Eval are benchmarks for evaluating conversation in | × | 0.04 |
| M-RewardBench, VL-RewardBench, Reward-Bench, MJ-Bench, MLLM-as-a-Judge, MM-RLHF-RewardBench are benchmarks for evaluating | × | 0.03 |
| Arena-Hard, AlpacaEval-V2, AlignBench, MM-AlignBench are benchmarks for evaluating alignment in multimodal models. | × | 0.03 |
| Fact-RLHF is the first multimodal RLHF algorithm, utilizing 10K human-labeled samples for the reward model and 50K hold- | × | 0.03 |
| DDPO assigns higher weights to corrected data in its loss function compared to standard DPO. | × | 0.02 |
| DDPO uses 1.4K manually refined samples covering hallucination types such as objects (41.2%), positions (20.3%), numbers | × | 0.02 |
| FDPO reuses InstructBLIP's existing data. | × | 0.02 |
| The creation of alignment datasets involves three core factors: data sources, model responses, and preference annotation | ✓ | 0.20 |
| Most alignment algorithms are designed for specific tasks such as addressing hallucinations, ensuring safety, and improv | × | 0.12 |
| This survey is the first to specifically focus on the alignment of MLLMs. | × | 0.08 |

## References


- http://arxiv.org/abs/2401.01523v4
- http://arxiv.org/abs/2503.14504v2
- http://arxiv.org/abs/2407.04973v1