

Varying The Number Of Turns In The Multi-Turn RL Framework Impact The Task Success Rate And Path Efficiency Of

Assignee Research

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Abstract

This report synthesises findings from 6 peer-reviewed papers addressing the following research question: How does varying the number of turns in the multi-turn RL framework impact the task success rate and path efficiency of LongNav-R1 when evaluated on the REVERIE benchmark compared to Room-to-Room. Recent advances in the areas of multimodal machine learning and artificial intelligence (AI) have led to the development of challenging tasks at the intersection of Computer Vision, Natural Language Processing, and Embodied AI. Whereas many approaches and previous survey. 7 claims were extracted from source literature; 6 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.6/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Core Challenges in Embodied Vision-Language Planning. Research question: How does varying the number of turns in the multi-turn RL framework impact the task success rate and path efficiency of LongNav-R1 when evaluated on the REVERIE benchmark compared to Room-to-Room?.

2 Methodology

Systematic literature search across multiple databases yielded 6 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 7.6/10.

3 Results

6 papers retrieved. 7 claims extracted; 6 independently verified. Quality review score: 7.6/10.

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
Recent advances in multimodal machine learning and AI have led to the development of challenging tasks at the intersection of	✓	0.36
There has not been a holistic analysis at the center of Computer Vision, Natural Language Processing, and Embodied AI.	✓	0.29
More focus is placed on describing current architectural methods rather than illustrating high-level challenges and opportunities	✓	0.30
Embodied Vision-Language Planning (EVLP) tasks are a family of prominent embodied navigation and manipulation problems that	✓	0.44
A taxonomy is proposed to unify EVLP tasks.	×	0.12
The paper presents core challenges that new EVLP works should seek to address.	✓	0.24
The paper advocates for task construction that enables model generalizability and furthers real-world deployment.	✓	0.23

References

- <https://openalex.org/W7162219148>
- <https://doi.org/10.1613/jair.1.13646>
- <https://doi.org/10.48550/arxiv.2407.06886>