

# Private Parameter-Efficient Fine-Tuning and Multimodal Alignment Degradation in VQA v2 and COCO Caption

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June 8, 2026

## Abstract

This report synthesises findings from 16 peer-reviewed papers addressing the following research question: To what extent does private parameter-efficient fine-tuning degrade multimodal alignment performance on VQA v2 and COCO Caption datasets relative to standard full-model fine-tuning. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.0/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Parameter-Efficient Fine-Tuning of Large Pretrained Models for Instance Segmentation Tasks. Research question: To what extent does private parameter-efficient fine-tuning degrade multimodal alignment performance on VQA v2 and COCO Caption datasets relative to standard full-model fine-tuning?.

## 2 Methodology

Systematic literature search across multiple databases yielded 16 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.0/10.

## 3 Results

16 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.0/10.

## 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.

## References

- <http://arxiv.org/abs/2606.01947v1>
- <http://arxiv.org/abs/2602.09439v1>
- <http://arxiv.org/abs/2110.06500v2>