Early-Layer LoRA vs. Full-Parameter Fine-Tuning for Zero-Shot Cross-Lingual Alignment in African Languages

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June 9, 2026

Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How does early-layer LoRA fine-tuning for lexical injection compare to full-parameter fine-tuning in preserving zero-shot cross-lingual alignment on FLORES-200 for intermediate-resource African. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 2.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Targeted Lexical Injection: Unlocking Latent Cross-Lingual Alignment in Lugha-Llama via Early-Layer LoRA Fine-Tuning. Research question: How does early-layer LoRA fine-tuning for lexical injection compare to full-parameter fine-tuning in preserving zero-shot cross-lingual alignment on FLORES-200 for intermediate-resource African languages?.

2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 2.2/10.

3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 2.2/10.

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/2506.15415v1
- http://arxiv.org/abs/2310.09917v3