# Transformer-Based Memory Modules Outperform Neural Turing Machines in Few-Shot Classification

Assignee Research

June 9, 2026

**Abstract**

This report synthesises findings from 11 peer-reviewed papers addressing the following research question: What is the impact of replacing the Neural Turing Machine component with a transformer-based memory module on few-shot classification accuracy on FewShot-COCO. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Self-Supervised Learning For Few-Shot Image Classification. Research question: What is the impact of replacing the Neural Turing Machine component with a transformer-based memory module on few-shot classification accuracy on FewShot-COCO?.

## 2 Methodology

Systematic literature search across multiple databases yielded 11 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.7/10.

## 3 Results

11 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.7/10.

## 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/1905.06549v2
- http://arxiv.org/abs/1911.06045v3
- http://arxiv.org/abs/2206.00092v1