

Experimental Results: Positional Encoding Comparison

This document presents the results exactly as provided in the experiment record, organized into tables. Losses are reported at the final logged evaluation step for each run.

Table 1. Results at 2,000 Steps — Seed 1337

Method	Step	Train Loss	Validation Loss
Learned positional embedding	1900	1.4518	1.6402
Sinusoidal positional embedding	1900	1.4274	1.6388
RoPE	1900	1.3610	1.5835
ALiBi	1900	1.3855	1.6039

Table 2. Results at 4,000 Steps — Seed 1337

Method	Step	Train Loss	Validation Loss
Learned positional embedding	3900	1.3415	1.5560
Sinusoidal positional embedding	3900	1.3192	1.5430
RoPE	3900	1.2790	1.5107
ALiBi	3900	1.3094	1.5452

Table 3. Results at 2,000 Steps — Seed 2024

Method	Step	Train Loss	Validation Loss
Learned positional embedding	1900	1.4523	1.6812
Sinusoidal positional embedding	1900	1.4283	1.6376
RoPE	1900	1.3822	1.5927
ALiBi	1900	1.3875	1.5954

Table 4. Results at 2,000 Steps — Seed 42

Method	Step	Train Loss	Validation Loss
Learned positional embedding	1900	1.4727	1.6695
Sinusoidal positional embedding	1900	1.4325	1.6394
RoPE	1900	1.3819	1.5920
ALiBi	1900	1.3867	1.6032

Qualitative Generation Samples

Method	Generated text
Learned positional embedding	twenty two, and what and hard you scapit. JULIET:
Sinusoidal positional embedding	twenty two Again virghanes to it fever's death! Wh
RoPE	twenty two give us peace, To do make knees shall s
ALiBi	twenty two hither Untille aglain by till your lent

Note: The qualitative samples above are reproduced from the supplied experiment record without modification. No additional samples or results have been added.