

Figure 17: Comparison of test success rates for PALDIFFCURL and OUTPACE (baseline CRL algorithm) in the Sawyer Push environment (https://github.com/vikashplus/sawyer_sim). The curves represent the mean success rate over five random seeds, with shaded areas indicating the standard deviation.

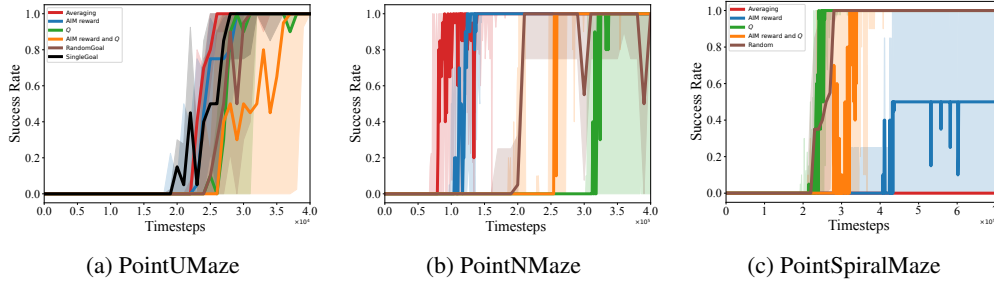


Figure 18: Performance of different goal selection strategies for PALDIFFCURL in the three maze tasks (note that, due to computational resource limitations, not all strategies have been tested on PointNMaze and PointSpiralMaze—these experiments will be completed after the rebuttal period).

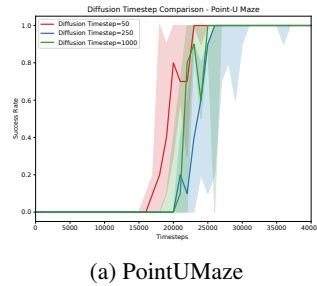


Figure 19: Ablation on the effect of the number of diffusion timesteps in the PointUMaze environment. The curves represent the mean success rate over five random seeds for PALDIFFCURL with varying timesteps (50, 250, and 1000), with shaded areas indicating the standard deviation.

Table 5: Wilcoxon rank-sum applied to the success rates from 5 independent runs of PALDIFFCURL (ours) and OUTPACE on the three maze environments.

Environment	statistic	p-value
PointUMaze	-2.04	0.021
PointNMaze	2.32	0.990
PointSpiralMaze	-3.88	0.001

Table 6: Computation time analysis comparing the execution time of PALDIFFCURL (whole algorithm), only the diffusion model in PALDIFFCURL, and OUTPACE. It can be noted that the diffusion model being responsible for 84.85% of the whole training time of PALDIFFCURL. During these measurements, all methods have been trained for 40000 timesteps in PointUMaze environment.

Method	Time	Percentage
PALDIFFCURL (whole algorithm)	2685.54 seconds	100.00%
Only diffusion model in PALDIFFCURL	2278.70 seconds	84.85%
OUTPACE	764.22 seconds	-