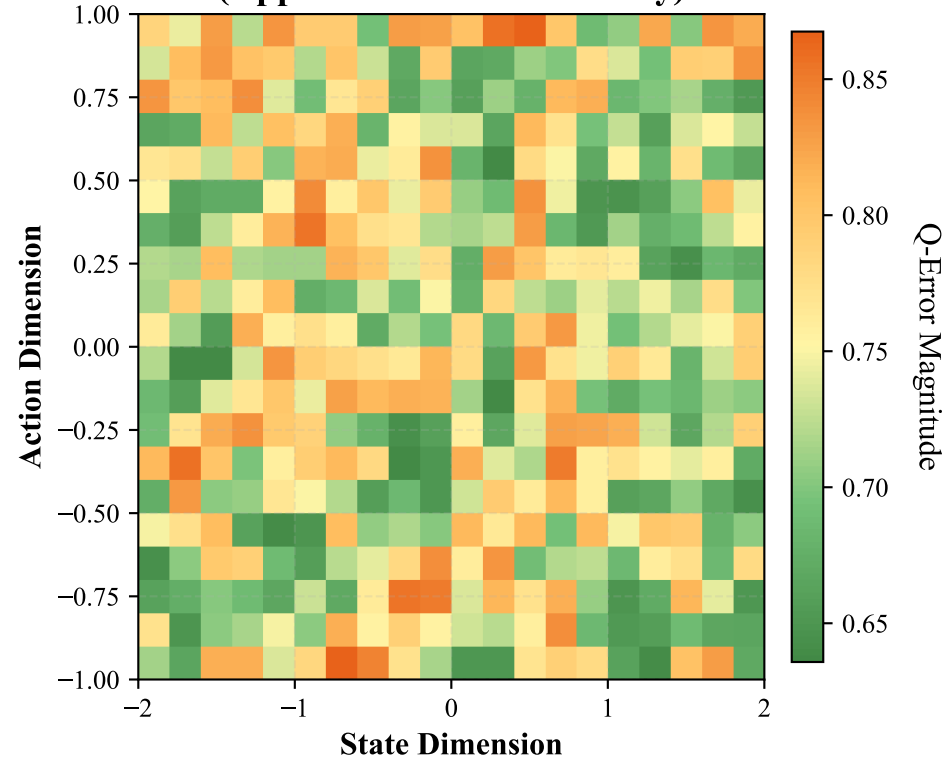
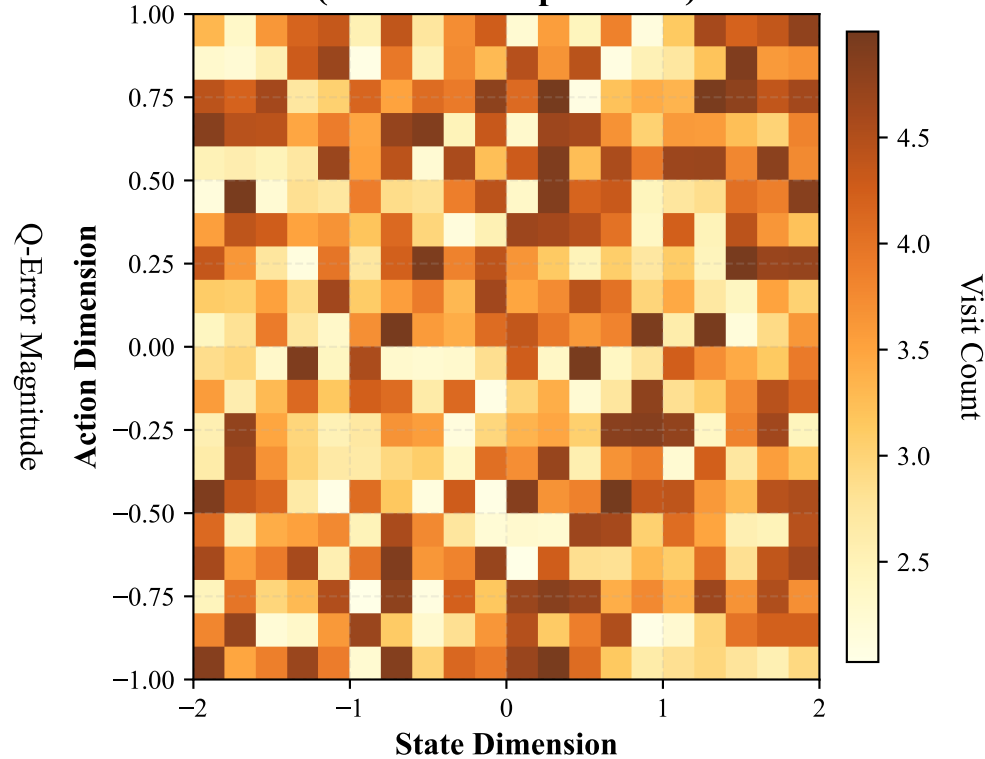


EUGE Mechanism: Early Exploration Stage (Episodes 100-200)

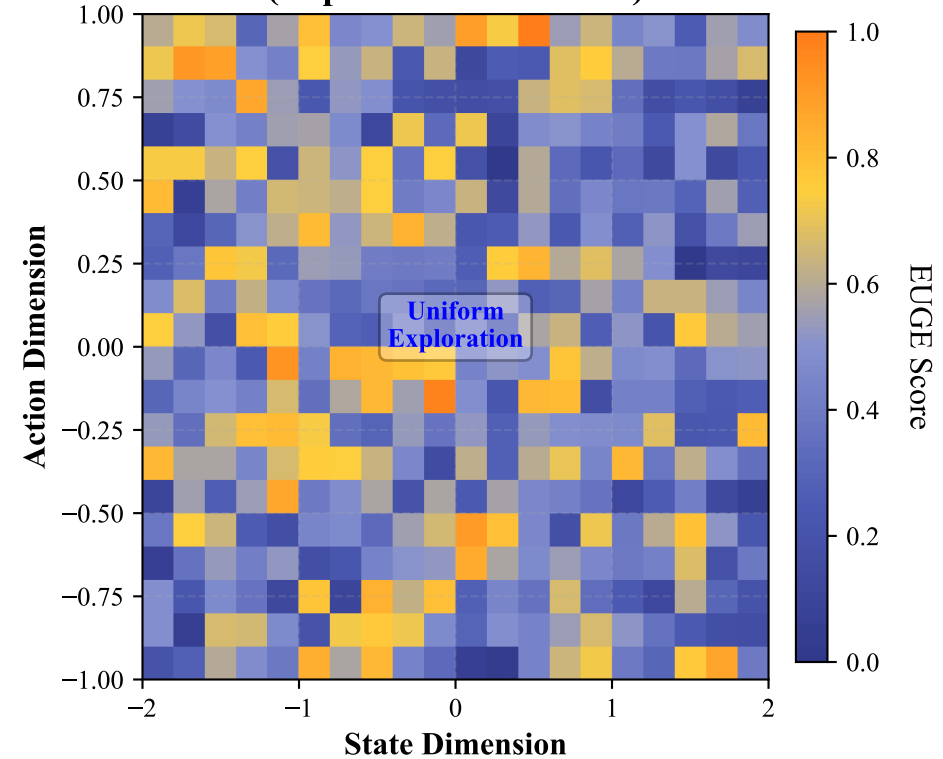
**(a) Q-Error Distribution
(Approximation Uncertainty)**



**(b) Visit Frequency
(Historical Exploration)**



**(c) EUGE Priority Score
(Exploration Guidance)**



$$EU_t(s, a) = \hat{Q}_t(s, a) + c \cdot \left(Q_{error, t}(s, a) + \sqrt{\frac{\log N_{total, t}}{N_t(s, a) + 1}} \right)$$