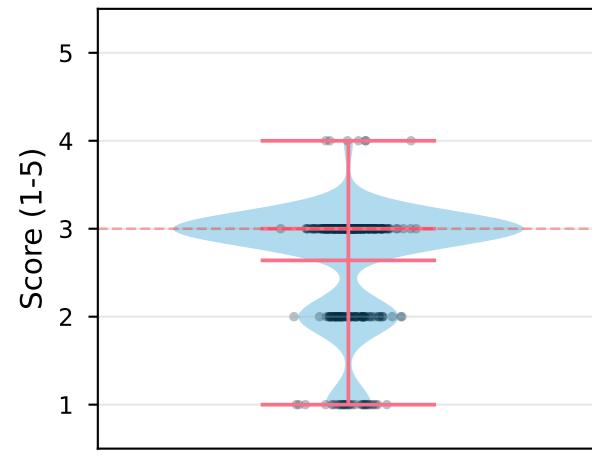
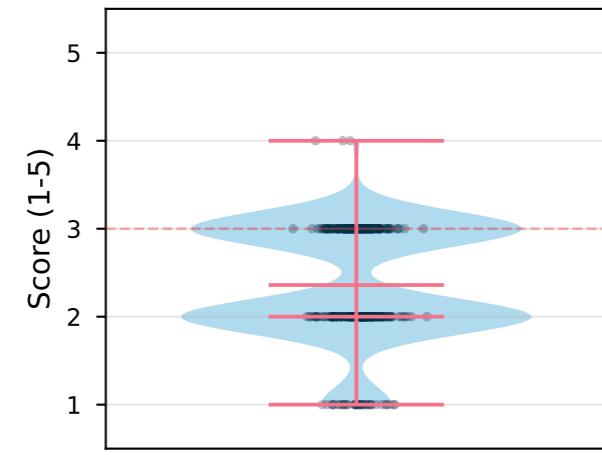


Distribution of Evaluation Metrics Across All Conversations (N=397)

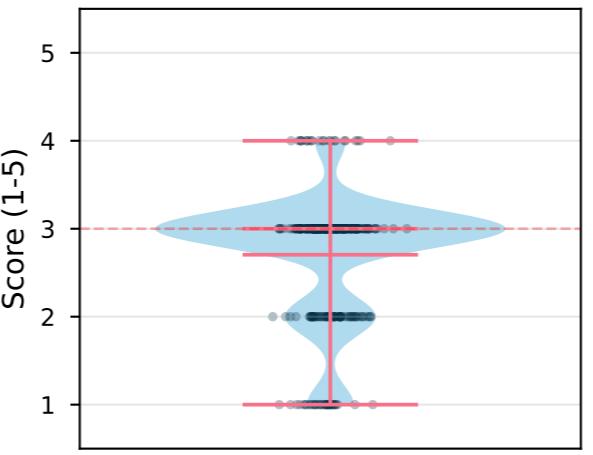
Cognitive Engagement
 $\mu=2.64, \sigma=0.67$



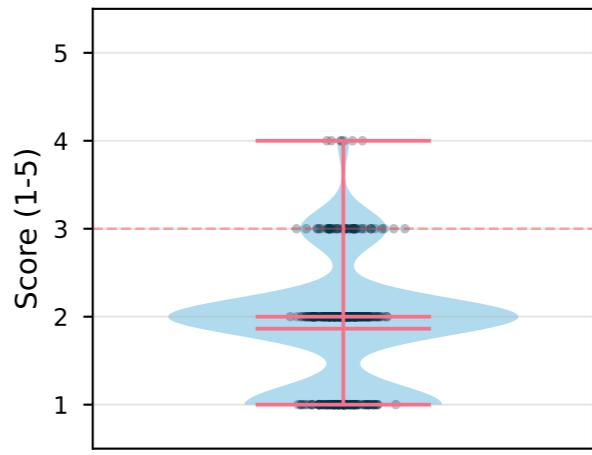
Query Sophistication
 $\mu=2.36, \sigma=0.66$



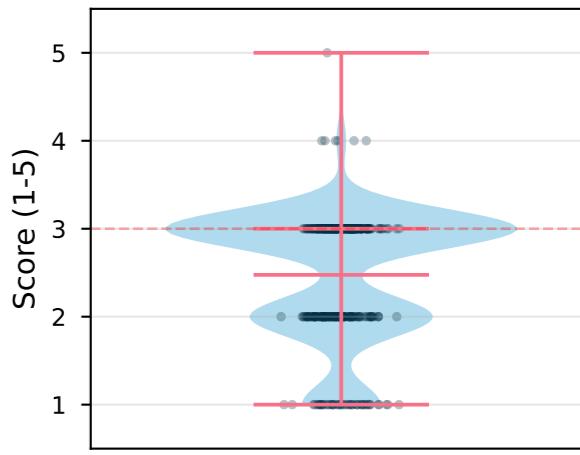
Self Directedness
 $\mu=2.70, \sigma=0.71$



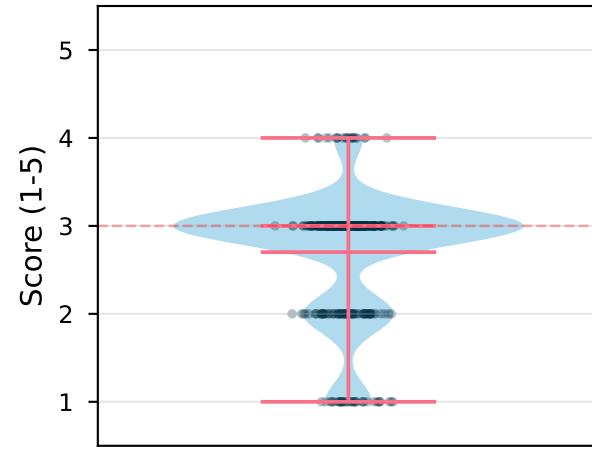
Iterative Refinement
 $\mu=1.86, \sigma=0.70$



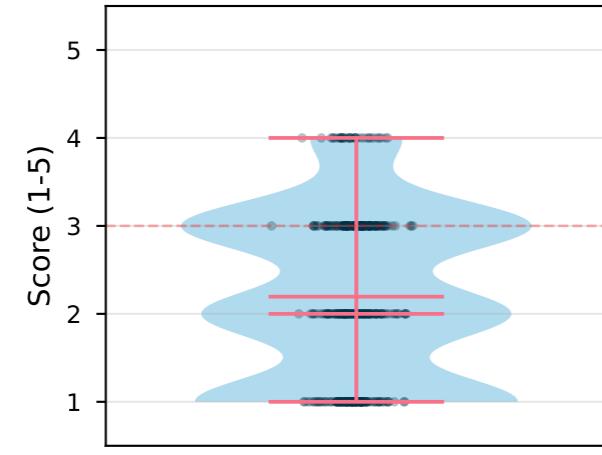
Learning Orientation
 $\mu=2.48, \sigma=0.74$



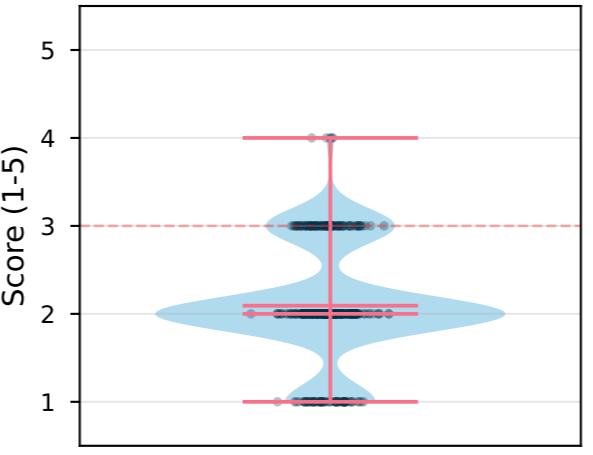
Agency Ownership
 $\mu=2.70, \sigma=0.71$



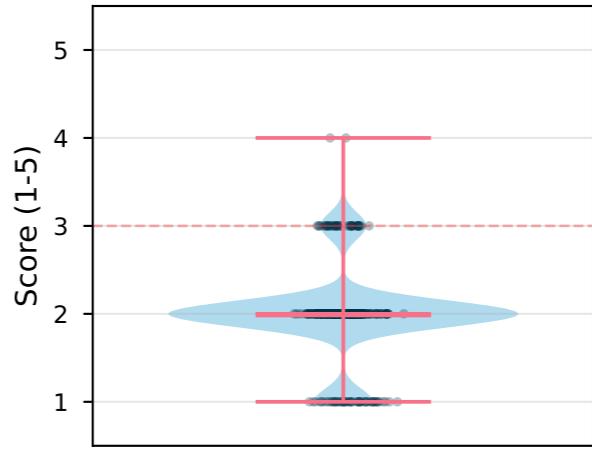
Linguistic Production
 $\mu=2.20, \sigma=0.96$



Memory Retention
 $\mu=2.09, \sigma=0.65$



Metacognitive Awareness
 $\mu=1.98, \sigma=0.50$



Overall Learning Quality
 $\mu=2.48, \sigma=0.67$

