Memory difficulties in recognizing and remembering the names of individuals are a commonly described behavioral symptom of major neurocognitive disorder. Four older adults with cognitive impairment living in an assisted living facility participated in the present study. All participants demonstrated difficulty naming and recalling names of staff members at the facility who provided care. A multiple baseline across participants design with embedded probes was used to evaluate the effects of spaced retrieval on the acquisition, delayed recall, and generalization of naming a target staff member. Probe measures included a non-identity matching-to-sample task, naming in the presence of untrained photographs of the target staff member, and naming during brief video presentations of the target staff member. Non-example presentations were also interspersed. Spaced retrieval resulted in within-session increases in delayed recall for all participants, and also resulted in minimal evidence of generalization across probe measures, including live-person probes. Modified spaced retrieval interventions were then employed to address stimulus control deficits. These modified conditions resulted in further gains in delayed recall performance, as well as improved generalization across probes. These results are discussed in the context of previous research with spaced retrieval. Future directions are also discussed in this study.