

## **Abstract**

Water safety skills are vital for the safety and well-being of all individuals but especially for individuals with autism spectrum disorder (ASD). Research regarding on-deck water safety behaviors and water safety skills for individuals with ASD levels 2 and 3 is limited. Therefore, the purpose of this study was to evaluate the effects of behavior analytic strategies in teaching water safety skills to children diagnosed with ASD level 2 and 3. A multiple-probe design across three participants was utilized in which participants did not enter intervention until their baseline data were stable and the participant before had stable intervention data. Each participant engaged in 100% of the measured water safety behaviors by the end of the study. The results suggest that this intervention may increase safe on-deck behavior in a community pool setting. Suggestions for future research and implications for practice are discussed.

## **Participants**

Participants for this study included three boys, aged four to eight years-old, diagnosed with ASD Level 2. Edward was an 8-year-old Hispanic boy. He regularly communicated using pointing, baby sign, and a speech generating device (SGD). He had been receiving ABA services through a local in-home therapy provider for three years. His mother reported that, while he had limited experience at a pool, she had concerns about his unpredictable elopement. Edward lived at home with his mother and younger brother and was frequently cared for by his grandmother while his mother was at work. For the purpose of the study, Edward's modality of communication was pointing to make a request. Mand modality was determined after speaking to the caregivers about the participants' learning history regarding communication. Elijah was a 4-year-old Hispanic boy who turned 5-years-old on the last day of the study. He was the brother of Edward. He had been receiving ABA services through a local in-home therapy provider for two years. He communicated vocally using 3–5-word sentences. His mother reported that he

attempted to run toward a pool at a previous encounter, and that has she had concerns about his elopement. For the study, Elijah communicated requests vocally by saying, “Mom, can I go swim?” Samuel was a 5-year-old biracial (Black and Hispanic) boy. He communicated vocally using full sentences. He was a participant at the university ABA summer camp and was not receiving other ABA services. His mother reported that he enjoyed the pool, and frequently ran straight toward the pool without caregiver permission. He lived at home with his mother and father at the time of the study. For the study, Samuel communicated requests in the same manner as Elijah. The primary investigator was a 24-year-old woman with 1.5 years of experience as a registered behavior technician, 12 years of experience as a swim instructor, and 9 years of lifeguarding experience. She was a graduate student of behavior analysis, and this study was part of her thesis-equivalent research project.

**Figure 1.**

*Teaching visual*



## Appendix 1

### Data sheet

<b>Task</b>	<b>Note (+/-, prompt, topography, etc.)</b>
Participant independently walks/doesn't run in pool area.	
Participant independently sits or stands at least 5 feet away from the pool or walks back toward the caregiver.	
Participant independently orients toward the caregiver.	
Participant independently requests for the pool.	
Participant independently waits for caregiver response before going toward the pool.	
If Participant requests but is denied access by caregiver, Participant waits without going to pool.	

## Appendix 2

### Fidelity sheet

Task	+/-
Researcher does not start trial if the participant is engaging in challenging behavior.	
Researcher begins the trial by letting the participant into the pool area.	
Researcher blocks the participant's access to the pool if they attempt to enter.	
Researcher verbally says the instructions to the participant while showing the visual.	
Researcher says, "Let's practice."	
Researcher prompts the participant to practice making the request.	
Researcher allows participant to enter the water upon making the request.	
Research allows participant to play in the pool.	
Researcher prompts participant to exit the pool by saying, "Time to get out and practice again."	
Researcher primes the participant with the visual/vocal instructions before the trial begins.	
Researcher prompts caregiver to start trial.	
Researcher prompts caregiver to stop 5 feet away from the pool.	
Researcher prompts participant to orient toward the caregiver and request for the pool, using least to most prompting.	
Researcher systematically fades prompts, starting with visual and physical prompts, ending with the fading of vocal and gestural prompts.	
Contingent on participant requesting for the pool from their caregiver while standing at least 5 feet away from the pool, researcher allows participant access to the pool.	
Researcher allows participant to play in the pool.	
Researcher prompts participant to exit the pool by saying, "Time to get out," <i>with the exception of the final trial of the day.</i>	

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