

## MARINE MAMMAL TRAINING PROTOCOL AND BEHAVIORAL INVENTORY FOR *TURSIOPS TRUNCATUS*

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The science of applied behavioral analysis is fundamental to behavior modification and the maintenance of desired behaviors. In order to be effective, the cues applied to elicit a specific behavioral response and the criterion established to define the intensity, frequency, duration, and topography of the behavior must be thoroughly described and implemented consistently, among multiple animals and trainers. Without this consistency, animal trainers may inadvertently contribute to failed trials, decreased response rates, increased latencies, the adventitious reinforcement of undesired and superstitious behaviors, as well as resultant, redirected aggression. Thus, marine mammal managers are challenged with the task of maintaining consistent behavioral cues, criteria, and protocols among multiple trainers within a facility.

The objective of this project was to restructure the historic behavior training pyramid and create a behavioral inventory and training protocol manual and model for the Atlantic bottlenose dolphins (*Tursiops truncatus*) housed at Dolphins Plus, a marine mammal managed care facility in Key Largo, Florida. The project included behavioral descriptions for four training applications: Foundation, Husbandry, Interactive and Show repertoires. For each application, relevant behaviors were described in detail. Each description includes an interactive, electronic behavioral model, developed using PowerPoint (see Fig. 1 for model framework), which identifies the name of the behavior, the foundation behaviors required to train that behavior, a standardized video of the behavioral cue or discriminative stimulus ( $S^D$ ), a description of the criteria for the behavior, and the detailed approximations required to train this behavior from inception to completion, including a step-by-step image guide and instructions regarding the implementation and fading of various  $S^D$ s. The model was also supplemented with a detailed user manual, various training tips (e.g. how to maintain behaviors), and currently serves as a platform for consistency in the application of behavioral cues and the understanding and maintenance of specific criteria at Dolphins Plus. The benefits of cataloguing and defining a training language and behavioral criteria, with a detailed, electronic, and user-friendly guide, could refine how information is disseminated within and among facilities, with the broader goal of improving communication and animal and staff training and management.

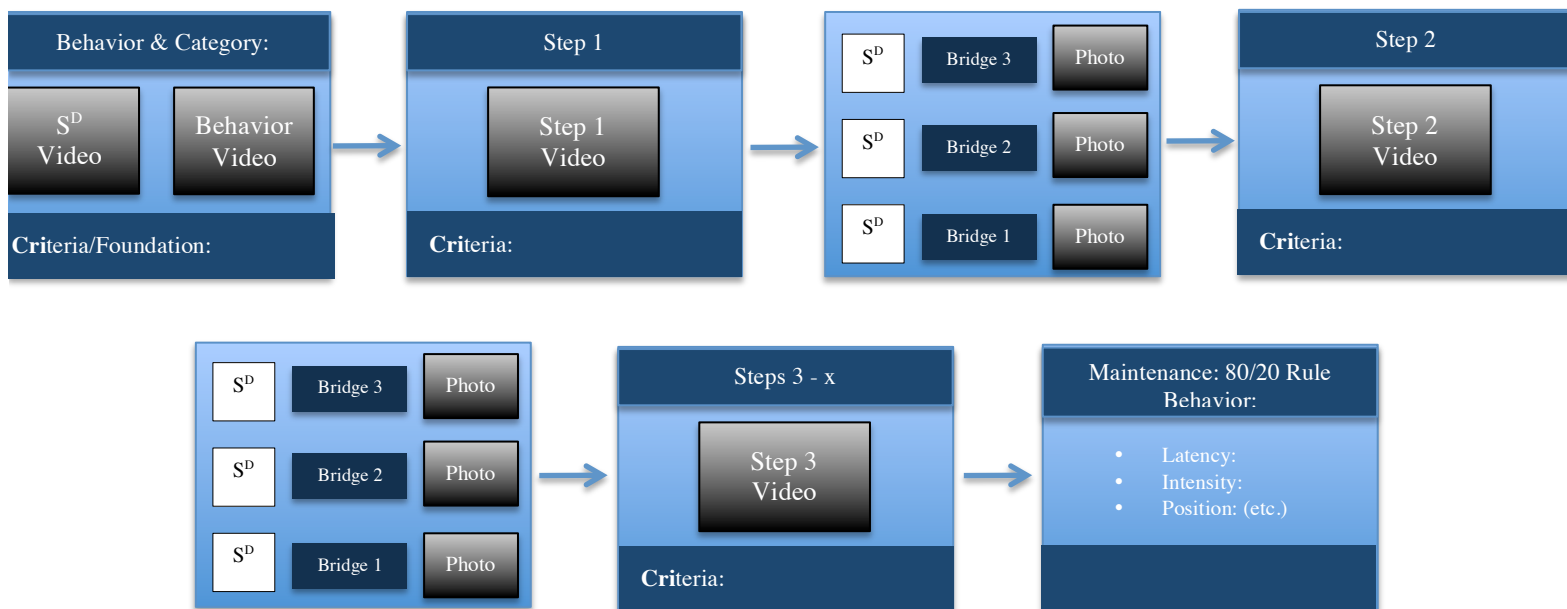


Figure 1. The interactive behavior model framework, including relevant components as follows: name of the behavior, standardized video of the  $S^D$  and criteria for the completed behavior, video of the completed behavior, detailed video approximations (steps 1-x), an indication of where to apply the bridge with successive approximations, and a behavior maintenance slide (i.e. the 80/20 rule).