To begin training, three objects—a ball, a life ring, and a styrofoam cylinder—were mapped onto a set of three arbitrary electronically-generated sounds, that from our previous work (e.g., Herman & Arbeit, 1973) we knew to be easily discriminable by Kea. At first, a single object was shown at the surface of the water, or held just under it, while the object's name was played. Kea was required to touch the object with the tip of her jaw. Later, pairs of objects were given, but only one was named. Touching of the named object was facilitated by using unique sounds to denote "Yes" (correct) and "No" (incorrect). Yes was followed by a fish reward and was a conditioned positive reinforcer, while No was followed by withdrawal of the object. The playing of No quickly came to interrupt an approach to the incorrect object, or any other behavior in progress. After some initial difficulty, Kea learned to distinguish reliably among the three objects by their names. Furthermore, generalization of the names occurred immediately: to balls of different size than the training object and to rings of varying size and composition.

At this stage of training the three names were holophrases signifying the more complete instruction, "touch the ball" (or ring or cylinder). In the next training step, the verb "touch" was named along with two other verbs, "fetch" and "mouth" (to place in the mouth). Training of each action word was rapid. The association of the word for touch with the behavior was facilitated through a prompting method in which the object to be touched was held against the dolphin's jaw in the presence of the sound for touch. Fetch, which was already under control of a manual gesture, was trained by pairing the new sound with the gesture and then gradually deleting the gesture over training trials. Mouthing of an object was taught by a "baiting" procedure. A fish was displayed together with an object to be mouthed and the sound for the verb "mouth." The usual response to a fish is an open mouth and the experimenter placed the object and then the fish in the dolphin's mouth. Over successive training trials, the fish was introduced progressively later in the sequence. Kea rapidly learned to open her mouth in the presence of the mouth sound and an object. Additional prompting and shaping resulted in an active approach to and mouthing of any object introduced in the tank, given the mouth sound.

The results of most interest during verb training, besides the relative rapidity of training, was the immediate generalization of response that occurred. In addition to mouthing the three familiar training objects in the presence of the mouth name, Kea correctly mouthed on their first appearance a plastic water pipe, a wooden disc, and the experimenter's open hand. The same type of immediate response generalization occurred for touch and fetch. The verb touch quickly transferred from the trained response of touching with the jaw to touching with any body part, including the top of the head (melon) and the extended pectoral fin. Objects were fetched successfully from any arbitrary starting place in the tank to any designated terminal point at which the experimenter stood. The fetch of an object was executed in whatever manner was convenient: pushing with the lower jaw, balancing on the upper jaw, or holding in the mouth, depending on the object. From these and additional generalized responses, we concluded that Kea understood the concepts of "touchingness," "mouthingness," and "fetchingness."

We next proceeded to two-word strings in which the response required was to perform the named action only relative to the named object. We found the syntactical arrangement, object-action, to be more easily trained than action-object, since we could require an intention movement (orienting response) to the named object before stating the action to be performed. This preparatory intentional response was then easily deleted by playing the two sounds—object-action—in rapid sequence. In this final syntactical arrangement, Kea performed almost flawlessly with all nine two-word combinations of the three objects and three actions. Approximately four months of training went into the program described, but much of this time was taken up in computer-program development and modification, changes in our conceptual approaches, and implementation of ad hoc training techniques.