

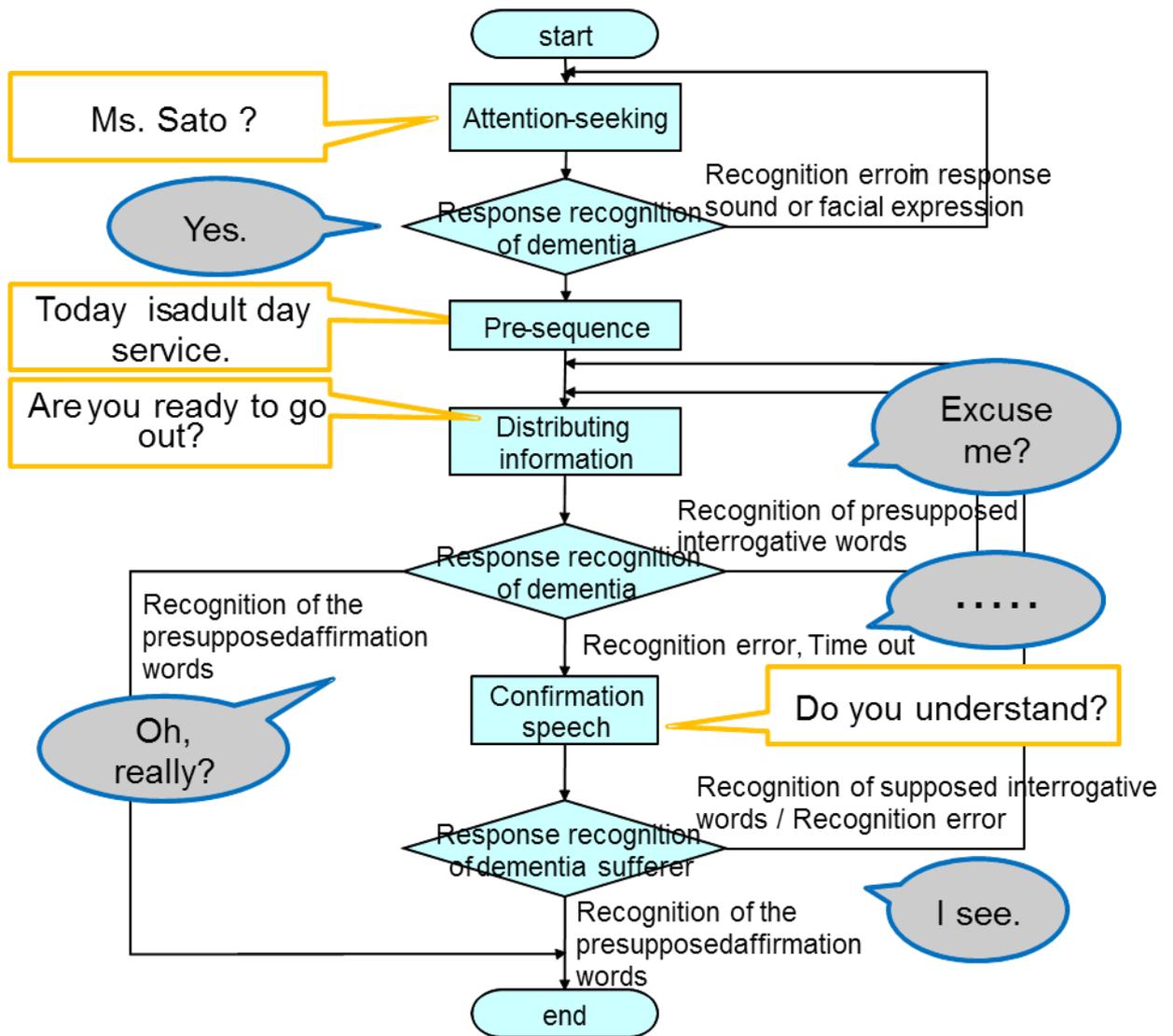
-Evaluation of the prototype of the interactive information support system for the elderly with memory loss/forgetfulness—

A prototype for an interactive robot system, specializing in information support, such as giving suggestions on what to do in a given situation around the house, has been developed for people with dementia. In the living field evaluation conducted with five elderly persons with mild cognitive impairment or mild dementia, who had been living alone until now, it was seen that 90% of the time, the robot was able to successfully remind the user, or relay information to the user, via interactive conversation.

The procedure by which the robot interacts with the user consists of an "alert" or "call for attention" phase, wherein the robot initiates conversation; a "chain of priorities" phase, wherein the robot delivers the gist of its message; a "relay information" phase, wherein the robot provides the information it deems helpful in the given situation; and a final phase where the robot finishes its current part of the conversation (and waits for continued interaction with the user).

Despite the fact that attentiveness levels and the ability to hear sounds are low for people with a tendency for forgetfulness, it was seen in our clinical trial that the robot system was able to provide information support to the test subjects through its programmed interaction protocols. Moreover, it was also seen that the test subjects could understand the robot's prompts for preparing to go out to elderly care services, or going to the washroom, etc., and were able to successfully carry out these suggested actions.

Reference: Takuya Narita, Misato Nihei, Rina Ishiwata, Minoru Onoda, Motoki Shino, Hiroaki Kojima, Shin'ichi Ohnaka, Yoshihiro Fujita, Minoru Kamata, Takenobu Inoue, Development of an Interactive Information Support System for Persons with Dementia, Collected Papers of the Human Interface Symposium, 2010, pp. 29-34.



Interaction protocol