OBJECTIVES: An investigation of the merits of an innovative cognitive intervention program is underway. The aims of this research are to refine, implement and evaluate the intervention for persons with early stage Alzheimer's disease (AD) who have memory loss, impairments in decision-making and comprehension and other cognitive/memory disabilities. The outcomes to be evaluated include memory, cognition, social functioning including self-efficacy and comfort in social settings, as well as quality of life.

RESEARCH DESIGN: A prospective pilot randomized controlled study is being conducted where eight (8) randomly assigned experimental subjects are exposed to the intervention program for six months and results compared to 8 randomly assigned comparison participants. The BEST program exposes persons with early stage Alzheimer's disease stabilized on standard treatment medication, i.e., cholinesterase inhibitors, to an intellectually stimulating learning environment using cognitive/memory activities and may stimulate a rebuilding process within the brain. Patients' motivation comes through incorporating the program into their daily life. For this study the participants will be persons ages 58-85 in the early stages of dementia of the Alzheimer type, with Mini-Mental Scores of 20 or greater, and who have at least a two-year associate degree college education.

METHODS: The study examines the benefits of the intervention program through neuropsychological testing of study participants before and after the treatment (or for comparison participants, before and after a 6 1/2 month period of time). The primary outcome measure is the ADAS-cog. The results for 8 experimental participants will be compared to those for 8 comparison participants, participants meeting eligibility criteria are randomly assigned to experimental and comparison status. Evaluators will be blinded as to the experimental status of study participants.

We will collect medication data at the baseline and post evaluations, review medical records to confirm baseline medications and diagnosis of probable Alzheimer's disease. Medical records will be obtained from participant's physicians with medical records release signed by participants.

The battery of tests include the following: Mini-Mental Status Exam; ADAS-Cognition; Clock Drawing test (CDIS Clock Drawing Interpretation Scale by Mario F. Mendez); Reading Comprehension Subtest; Boston Diagnostic Aphasia Examination (BDAE); Written Narrative Subtest (BDAE); Auditory Commands Subtest (BDAE); Neuropsychiatric Inventory; Verbal fluency (FAS and animal categories); Events Questionnaire; Cornell Scale for Depression in Dementia; And scales for measuring conversational skills including two items of the IS Scale by Reisberg, a 19-item new scale developed by Marie Savundramayagam, Univ. of Kansas, and another caregiver report scale under development by N. Emerson Lombardo.

Eligibility criteria for all experimental and comparison participants include the following: 1. Be 58 - 85 years of age; 2. Participants are in the early-stages of physician-diagnosed Alzheimer's disease with scores of MMSE 20 or greater and who have memory loss, impairments, in decision-making and comprehension and other cognitive/memory disabilities such as those sustained by Kenneth Haas;

3. Participants have been stabilized on a cholinesterase inhibitor medication (currently Aricept, Exelon or Galantamine) for a minimum of 3 months; 4. Participant must reside within the greater Boston area. 5. Participants have a college-level academic background of two-year associate degree or better. 6. Participants have care partners and families who are willing to support participant participation in the study, i.e. the evaluation protocols, and commit to complete their portion of two evaluations and daily and weekly logs. 7. Participants state they are motivated and willing to do the intervention.

Random assignment takes place after in-person baseline evaluations confirm previously consented and telephone screened participants meet the MMSE and other eligibility criteria.

FINDINGS: Study not yet completed. Interim Results: As of November 2004, all but 1 of 16 participants have been recruited, 15 persons evaluated or scheduled for evaluation, and 14 randomly assigned to treatment or comparison, treatment completed with 3 participants and initially 4 additions. Thus far early stage patients and their care partners have found the idea of the intervention attractive and have readily consented to participate; thus recruitment has gone well. About half the participants screened into the study heard about the study through paid advertisements and about half through professional referrals or meeting investigators at conferences and other settings. Early treatment sessions are going as expected, with some patients experiencing initial challenges with understanding exercises giving way to learning ways to do the exercises and increased patient confidence in their abilities.

CLINICAL RELATIONSHIP: Study affiliated with Boston University and VAMC-Bedford. Treatment takes place in participant's homes.

IMPACT/SIGNIFICANCE: Not yet applicable.