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Facilitated Life Story Writing by Individuals with Dementia for Conversational Remembering Boxes: Follow-up Summer 2005 - Report Series # 10

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Report Series - # 10

***Facilitated Life Story Writing by
Individuals with Dementia for
Conversational Remembering Boxes:
Follow-up Summer 2005***

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About SERC (Sheridan Elder Research Centre)

Through applied research the Sheridan Elder Research Centre (SERC) will identify, develop, test and support implementation of innovative strategies that improve the quality of life for older adults and their families.

1. Wherever possible, older adults participate in the identification of research questions and contribute to the development of research projects at SERC.
2. We conduct applied research from a psychosocial perspective which builds on the strengths of older adults.
3. Our research is intended to directly benefit older adults and their families in their everyday lives. The process of knowledge translation takes our research findings from lab to life.
4. SERC affiliated researchers disseminate research findings to a range of stakeholders through the SERC Research Report Series, research forums, educational events and other means.
5. A multigenerational approach is implicit, and frequently explicit, in our research.
6. To the extent possible our research is linked to and complements academic programs at the Sheridan College Institute of Technology and Advanced Learning.

EXAMPLES OF SERC RESEARCH

The Built Environment	Information & Communication Technology (ICT)	Human Communication	Public Policy	Other research interests
- Indoor/Outdoor Design - Graphic Design	- Accessible computing - Age appropriate games	- Hearing/low vision - Vision - Language	- Elder Abuse - Ageism	- Self image/self esteem - Care-giver support

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The goal of this follow-up study, conducted in the summer of 2005, was to enhance the experience of personhood in individuals with dementia through computer-mediated life story writing, by addressing the key problem areas identified in the pilot study (Summer 2004). Four of the original eight male participants were paired with a student researcher over the course of 6 weeks. The interviews were taped and electronically recorded. The life stories were transcribed and presented to the participants to be added to the personal memory boxes that were sent home during the first study. Follow-up with caregivers at the 3-month mark indicated a good level of interest but reduced activity with respect to the memory boxes. Unlike the previous study, computer use had an effect, albeit a small one, on the topics of stories elicited from two participants.

1. Purpose

This follow-up study continued to explore the creative ways in which caregivers can help to maintain a sense of personhood in individuals with dementia. The primary goal was to build on the experiences of the participants, caregivers, and researchers involved in the original pilot study (Summer 2004), documented in the Sheridan Elder Research Centre Report # 4. In order to improve both the process of facilitation and the experiences of the participants, the following changes were implemented to expand on key issues identified in the Summer 2004 pilot study:

1. Increased number of interview sessions, enhanced opportunity to become familiar with the researcher, and an expanded role of the caregiver.
2. Increased utilization of computer technology by the participant through the introduction of an electronic storytelling aid that provided verbal and visual cues to orient and engage the patient.

The overall goal remained the same: to enhance the participants' quality of life through facilitated communication, specifically the writing and sharing of personal life stories. The importance of personal memory boxes as both a legacy and a cueing system continued to be stressed to the caregivers and participants.

2. Methodology

2.1 Research Design

The qualitative orientation of the study reflects the psychosocial focus of the Sheridan Elder Research Centre (SERC). This approach recognizes the individual variability in disease progression as well as the unique emotional make-up and life experiences of each participant. The qualitative design incorporated an interview process that could be individualized based on specific abilities and preferences, while an informal setting facilitated an in-depth understanding of the thoughts, values and experiences of the participants. It also recognized the variability of communicative events within each session, with a flexible interview structure that could easily be altered to incorporate the participant's unique interests and abilities.

2.2 Respondent Sampling

Participants for this study were recruited from the same pool as in the original pilot (SERC Report # 4), all of them attendees of the Victorian Order of Nurses (VON) Seniors Day Program at the Sheridan Elder Research Centre (SERC). All of the participants had a diagnosis of Alzheimer Disease and Related Dementias (ADRD). In preparation for the pilot project, the researcher assessed cognitive function using the Standardized Mini-Mental State Examination (SMMSE). The participants scored in the range of 4 to 24 out of 30, with a mean of 15. To ensure that participants benefited from the interview process according to their individual abilities, the SMMSE was administered again during the follow-up phase. The lowest-scoring participants chose to not be included in this phase of the study. The remaining four participants scored in the range of 14 to 25 out of 30, with a mean of 19. Only one participant showed a decline from the previous year (17 to 14 points). Two of the participants had better results, and one participant showed no change in SMMSE scores.

Midway through the study, it was discovered that one of the participants in the study may not have been suffering from Alzheimer's Dementia as previously recorded, but rather the effects of a traumatic brain injury.

2.3 Method

A letter outlining the structure and goals of the follow-up study was sent to the seven caregivers of the original group of eight who had completed the phone follow-up forms. Five of the original eight male participants and their caregivers initially consented to participation in the follow-up study. One person had moved away, one was not interested, and one had developed significant behavioural problems since the original study. It was found, however, that the fifth consenting participant had developed some serious speech production issues that hampered his ability to communicate, causing significant distress.

To maintain continuity, data was collected during eight interview sessions, held twice per week for 4 weeks with each session lasting 45 minutes to 1 hour. Additionally, only one McMaster University gerontology student researcher conducted all the interviews, which allowed the opportunity to build relationships with the participants.

To encourage the involvement of caregivers, an introductory session was scheduled by the researcher with each of the caregivers, with an opportunity for a joint session with the participant. Only two caregivers took the opportunity for a joint session at the participants' homes, and two other caregivers met with the researcher at SERC. One caregiver was not available due to time constraints.

The sessions were initially scheduled at the participant's convenience, although a consistent schedule was developed based on the participants' attendance at the VON Seniors' Day Program. The interviews were primarily held at the "Internet Café" in the Sheridan Elder Research Centre (SERC). Special arrangements were made for one of the participants who had exhibited some aggressive behaviour in the past, and who was

easily distracted. The special interview sessions were held at the solarium inside the VON Seniors' Day Program centre. Additionally, the daily preferences of remaining participants were taken into account when choosing the setting of each interview.

Unlike the previous study, the researcher was aware of individual SMMSE scores. The first session was dedicated to familiarizing the participant with their respective interviewer. Participants were free to withdraw if requested. The interviews were taped where appropriate to ensure accurate transcription of each life story. The interviewer also used Microsoft Power Point® software to create a simple, visual cueing system designed to encourage interaction with the computer. For example, the interviewer would search the Internet for topics identified by the participants in order to encourage story telling. The tapping noise of computer keys was eliminated by working exclusively with a mouse-controlled interface (a touch screen was unavailable).

Following the conclusion of data collection, caregivers were debriefed by phone. A follow-up conversation took place following a 3-month period.

2.4 Data Collection Measures

The interviewer completed a daily log following each session. The interview results were recorded separately for each client and included the following categories: time of the interview, general comments about the session and the emotional/cognitive state of the participant, approaches of eliciting stories that worked, approaches that did not work.

The interviews were also taped (tape recorder) and transcribed by the researcher. The transcripts combined with the notes made on the computer during the interview process were used to compile a life story.

2.5 Data Analysis Process

The data was analyzed based on two research goals. The primary goal of this study was to facilitate the life story writing of individuals with dementia for conversational memory boxes. The data coding for life stories was extrapolated from the transcripts of taped interviews and the researchers' interview notes. This data was then summarized and coded by organizing the information into templates used to identify themes. The identification of common themes would guide future suggestions regarding the items and questions that could be included in the memory boxes. Initial conversations with the participants' caregivers were used to gauge the general degree of activity in the use of memory boxes.

A secondary goal involved the enhancement of the communication process with computers and ability-appropriate software. The Researcher used a daily log to identify any patterns or connections between experiences of the participants in terms of computer use, as well as the degree of interest in the life story telling process.

3. Results

3.1 Data Analysis Findings

Facilitated Life Stories: Two of the participants repeated the same stories during every session. For example, even if the question pertained to a new topic, the participant pause and then continue with a previously related story. In the case of one participant, the choice seemed to be strategic and focused on dealing with questions that were unfamiliar or those he felt he was not able to answer (the same question would be repeated later on in the conversation and it would be diverted in the same manner). These two participants also exhibited a much higher number of circumlocutions and “empty words” than the other two participants. The SMMSE scores of these two participants were 15 and 25 respectively, which shows a large variation in relative cognitive impairment but similar conduct in terms of storytelling.

The story that was richest in detail and had a much lower number of circumlocutions and repetitions was elicited from the participant with the lowest SMMSE score (14). This participant also demonstrated a very acute sense of own spirituality and values, providing a lot of good advice on life and career to the researcher.

The participant who had a suspected head injury rather than Alzheimer’s dementia (SMMSE score of 22), produced a much more varied story than the other three participants. Repetitions were minimal, although the participant would repeat the names of children and grandchildren continuously as if trying to remember them (counting them off on fingers). Topics were maintained well, and direct questions were answered. Circumlocutions were rare. This participant exhibited the highest awareness of the purpose of the study, and remembered the researcher’s face (and often first name as well) on all occasions.

Four life story themes were identified in the pilot study, and were present in the follow-up study: life reflection, family, future, and present life circumstances.

Life Reflection. The first theme involved “life reflection”. This category included stories relating to birthplaces, “how it was back then”, work history and the war years. All four of the participants extensively recalled their war experiences. The two participants with consistently repetitive stories tended to focus on this topic. Two of the participants did not seem to recall very much from their childhood. One of the participants consistently focused on the differences between “now and then”, commenting on the facility of travel today (“it takes no time at all”), and new technological inventions.

Family. The second theme was that of “family”, including commentary on marriage, children, and family relationships. Three of the participants stressed the importance of children in their lives, acknowledging the important role, which their partners played in their current circumstances. The most cognitively impaired participant (lowest SMMSE score) appeared to have the greatest insight into the situation of his partner, and he expressed his frustration with the “way I am” and his inability to support his family. One

of the participants, although he commented on his family, could not recall familiar names, and often turned to questioning the researcher about the same topic instead of answering the question.

Future. The third theme was the “future”. This included the participants’ aspirations and hopes e.g. “I should write stories, write a book...I mean I have lots to say.”, “I want to be one of the top dogs, yes...but I want to be in a position where I can help people.” Three of the four participants reflected concrete ideas about the future.

Present Life Circumstances. The final theme involved the “present life circumstances”, including miscellaneous comments about food preferences, hobbies, and travel. For example, one participant indicated his need to continue working on a stamp collection: “*he [son] and I share ...he’s in the stamp business and I’m in the stamp business (laughs)...when he finds a package of stamps then I get my share and we go at it...it’s fun.*”

The follow-up study also identified additional two themes not previously expressed.

Spirituality. The first theme was that of “spirituality”. All four of the participants expressed an awareness of their own spirituality, and two talked specifically about that issue. Interestingly, the participant with the lowest SMMSE score expressed his faith most succinctly: “*Dear Lord...you’ve taken care of me; please let me live a long time so I can be helping them [children]...right in some way; as long as you see fit that I can be that person; to help those kids...*”. This was expressed in a very expansive manner, with his head thrown back looking at the skylight, during a conversation on a topic that seemed to cause this participant the most frustration: the inability to take care of his family. The participant with the highest SMMSE score expressed his views very philosophically:

Participant: ...where did God come from?

Researcher: I know we could have circular conversations about that, yes absolutely. I don’t think...

Participant: How can something come from nothing?

Researcher: That’s true... that is the big question isn’t it?

Participant: Yeah. But today it’s a small world you know... you get on your jet and fly from the east to the west in about three hours... or the west to the east...

Life Philosophy/Life Lessons. The second theme related to the participants’ “life philosophy”. Although as Kempler (1995) suggests, there is an inability to follow complex conversations with increasing dementia, unstructured discourse in the form of a life story evoked many complex ideas about life and existence. Additionally, the participants with the lowest SMMSE scores engaged in the liveliest philosophical/life lessons conversations. For example, one of participants focused on job/career advice: “*You have to be suitable for what their needs are and you have to be able to talk intelligently so that you make sense...remember that...*” The participant also focused on

networking and “meeting the right people.” Another participant delved into the reasons for the researcher’s interest in interviewing him: *“Yes well, you think too and so do I....but I can see you are probably ...it’s not quite the same thing that I think about... you pursue other lines of thinking...in fact... your line of thinking is getting all the people like me...and finding out...well it’s strange that this person...has lived so long...and they are still able to think a bit. I do think a bit...now I’ve go to find out what makes you interested in me?”* The same participant also talked about his insight into other people: *“I have a strange habit of looking at people usually into the eyes...as they are studying me and I say well... what sort of people they are...”* Additionally, two of the participants (the two with the lowest SMMSE scores) showed a great interest in the researcher’s own experience, asking many poignant questions. Although this could be taken as a way of deflecting issues of which the participants were unsure, it also revealed a great deal of complex thought that was only expressed in the last few interviews.

It is important to note that humour was definitely a tactic used by the participants to liven up the conversation. For example, a conversation about flying overseas for a vacation and the researcher’s comment that you had to fly there, you could not walk was met with: *“No...it’s hard to fly...it’s hard on the arms. Isn’t it?”*

Unlike the original study, which showed significant variation in the length of the stories with a range of $\frac{1}{4}$ of a page to 4 pages per interview session, all participants conversed for the full length of each session. Additionally, the length of individual stories per interview was the same for each participant i.e. a person would consistently present a story that was the same length. It is important to note that the participant with the lowest SMMSE score (14) generated the most varied, and the longest, story. The participant whose story was limited by Parkinson’s disease was absent from this study.

The facilitation process logs written by the student researcher outlined several areas that will require further modification and study (see Research & Policy Implications section 4).

Computer Use: All of the participants were encouraged to engage with the computer. The participant whose interview was conducted in the solarium was interested in the researcher’s laptop during one session conducted in an enclosed office, but the glass-encased solarium was not conducive to the concentration required for computer use. One participant showed engagement with the computer, the other two preferred to participate indirectly by watching the interviewer type/search for information on the Internet. None of the participants attempted to use the mouse or keyboard, although the participant who had worked extensively in a computer-related field before retirement stated that he was unsure how to operate one *now* and thus preferred not to do it himself. Based on the researcher’s field journal the participants’ main reason for not using the computer seemed to be their expressed fear of being embarrassed of not being able to use the computer, rather than a lack of interest.

The cueing Power Point tool was minimally effective. The tool included pictures (house, flower (to suggest a garden), vacation spot, cars), words (chosen to reflect clear topics, family, love, work, children, hobbies), and sounds (classical and “war time” music which was included after participants identified their musical interests). The word cues were more effective than visual cues (pictures of a house, a flower, a vacation spot, cars). The visual cues seemed too vague – participants were unsure what the visual cues were supposed to achieve even with an explanation. The visual cues based on things familiar to the participants may have elicited a better response. All participants reacted positively to the music, however, suggesting that further research into the effectiveness of aural cues should be considered. The participant with the probable non-AD cognitive impairment found the Power Point tool most useful and reacted the best to word cues seen on the screen. However, the participant who expressed his discomfort with actually using the computer himself was moderately engaged with the computer indirectly as the researcher surfed the Internet for topics of interest. Topics that reflected his hobbies were well received, and the participant was focused on the computer screen. Additionally, a web page showing an airplane (which was brought up unintentionally) stimulated a long conversation about airplane engineering.

Timelines & Connections: results from the pilot study suggested that a preliminary time for introduction and the building of a relationship must be allowed before the interview sessions began. It was found in this study that the participant with whom the researcher had the most extensive initial interview (at his home) also elicited the richest amount of data. As mentioned above, more frequent sessions also facilitated increased recognition of the researcher and a better flow of information.

Caregiver Involvement & Relationship Building: the pilot study results suggested that lack of participation on the part of caregivers might have contributed to the underutilization of the memory boxes. All caregivers in this study noted that they did not have enough instructions on how to use the stories as cueing tools. During initial contact it was found that two of the caregivers continued to add things to their memory boxes, one was not adding to it as the participant did not want her to do it/was not interested in it, and one caregiver found the process “emotionally draining” as the participant was no longer able to remember any details (remember them “correctly”).

In terms of researcher’s involvement with the participants, the pilot study suggested that more in-depth knowledge of the participant would result in richer, more vivid stories. This researcher found this to be correct. To facilitate the changes, the number of interview sessions was increased, the sessions were scheduled more frequently, and the researcher set up meetings with the caregivers to get a better understanding of the participant. First, the longer time allotted for interviews and more closely spaced interview sessions allowed the researcher to a) forge a better relationship with the participant and observe participant in the Day Program setting, and b) lower time lapse between the sessions seemed to facilitate recognition on the part of the participants. One of the participants with a lower SMMSE score (15) appeared to recognize the researcher only if she wore a particular sweater, which she put on for the last 4

sessions and was recognized by the participant. Secondly, only one joint caregiver/participant session was carried out in the participant's home. However, this session significantly contributed to the comfort level between the researcher and participant. Additionally, when this participant was agitated or expressing a sad mood, a mention of having visited him at his home, and having met his wife, instantly facilitated more engaged conversations. Furthermore, the researcher gained a much better idea of the issues faced by this participant,

An addendum to this report will be available once the stories are distributed among the caregivers. A follow-up phone survey will be used to query the caregivers about the stories.

3.2 Limitations

3.2.1 Environmental Distractions.

Unlike the reports presented by the researchers involved in the pilot study (SERC Report # 4), this researcher did not observe any discomfort on the part of the participants while conducting interviews at the SERC Internet Café. Participants were generally comfortable in that location except for one individual whose previous aggressive behaviour and physical strength precluded a one-on-one interview in a location without constant supervision. However, although the impact of unfamiliar surroundings was minimized by the familiarization of the participants with the Internet Café, as well as flexibility in the location of interviews, some distractions such as slamming doors, conversations in the corridor, and staff coming into the interview spaces did reduce the quality of the recorded data. Two issues arose from the evaluation of interruptions. First, the participant with most pronounced behavioural problems (high and consistent levels of agitation, easily irritated, low ability to focus and concentrate) was interviewed inside the Victorian Order of Nurses' Day Centre. The location best suited to supervision was a centrally located, glass-enclosed solarium, in plain view of the staff and the front door. This location was used for two other participants on days when the Internet Café was in use. All participants displayed significant difficulty concentrating when other Day Center users, families, and staff looked or waved through the window, as well as when people entered the front door. The most impaired participant showed significant difficulty concentrating and sessions had to be consistently rescheduled for times when most people were involved in Day Centre activities thereby reducing the constant flow of traffic near the solarium. Secondly, staff interruptions and external sounds such as slamming doors significantly reduced the clarity and intelligibility of recorded stories. As a result, transcription was difficult and the researcher relied on field journal entries to clarify the content of elicited stories. This was not always possible, however, and as a result, the stories may have small inaccuracies or omissions.

3.2.2 Equipment

Although most individuals do not exhibit difficulty in the production of intelligible speech until the later stages of dementia (Kempler, 1995), the anomia (difficulty

finding appropriate words), resulting circumlocutions (talking “around” the topic), and the use of semantically empty words (“stuff”, “thing”) combined with greatly varied speech volume made the transcription very difficult. The low quality of recordings made on magnetic tape, even with the aid of an omni-directional microphone, created obstacles that prevented very detailed linguistic transcription. Additionally two of the participants had pronounced Scottish accents that often created problems for the researcher. As a result, only a basic transcription, using normal orthography, was attempted in order to create cohesive life stories that could be presented to the participants and their caregivers.

3.2.3 Other Issues

One of the recommendations presented to counteract the existing environmental limitations (SERC Report Vol. 4) was that the participants’ own homes may be a more desirable setting for conducting storytelling interviews. Although the preliminary interview conducted in the participant’s home facilitated a greater familiarity and knowledge of the participant, this researcher found that interviewing at home provided a great number of distractions than the controlled environment of the SERC Internet Café. Additionally, the presence of a caregiver reduced the number of independent responses given by the participant, as the caregiver often provided the appropriate answers/memories.

Furthermore, due to the nature of the participants’ conditions, it was difficult to control for time dedicated to story telling and the length of the stories generated by the participants varied according to mood and concentration levels on interview day.

4. Implications for Policy and Research

- Story telling, and other methods of communication, may have a beneficial effect on the person with dementia – it is important to pursue this course of research on several levels, including the impact of enhanced communication on the relationships between people with dementia and their caregivers. Although we were unable to ascertain if the stories helped to cue the people with dementia during conversation at home, further research with expanded follow-up may allow us to do so.
- A more in-depth study on the topic of “memory box training” should be developed to assist the caregivers with this process. All caregivers appreciated the memory boxes, but the majority was unsure how to use them both during the pilot and the follow-up phases.
- Research into dementia should be on an INDIVIDUAL basis and ideally include:
 - An in-depth interview with both caregiver and participant
 - A detailed history of the progression and presentation of dementia
 - An in-depth interview with the formal caregivers of the person
 - An in-depth interview with the participant in a safe environment e.g. home, long-term care facility room, etc.

- Future research should incorporate the active and specific use of both non-age-specific, commercially available software and the use of the Digital Memory Box developed by the Sheridan Elder Research Centre.
- Future research should include laptops and touch screens to personalize the experience and engage the participants.
- Consideration of working on computer in small groups, which would encourage interaction between participants, and hopefully increase interest in the computer. This is not recommended for every person, but based on the experiences with the participant who was easily distracted by his friends, it may be helpful for some to engage both that person and his/her friends/family with the computer.
- Future directions for research on the impact a specific communication style has on the speech partner with dementia. For example, either controlling for the communicative style of the researcher i.e. one that is very directive with lots of questions vs. a researcher who allows for pauses/silence.
- The number of researchers and the interview schedule should be expanded to allow for increased familiarization of participant with researcher and vice versa.
 - Increasing the number of *total* interview sessions from 4 to 6 once weekly may not prove as effective as increasing the number of *weekly* sessions. For example, when meetings were scheduled 2 times per week on consecutive days, the stories flowed better; there was greater consistency and recognition.
- This follow-up study supports the previous conclusion that story telling is an effective method of communicating with persons with Alzheimer Disease and Related Dementias (ADRD) (SERC Report Vol. 4). This is important for two reasons:
 - Enhanced ability to communicate may contribute to the maintenance of personhood for the person with dementia on both individual (self-image) and societal (perceptions and stereotypes) levels. The low degree of engagement with computers for this activity, for example, appeared to result from a) the participants' previous involvement with technology, or b) *the fear of being embarrassed by their inability to use the computer appropriately.*
 - Story telling introduces new directions in activity-design for people with dementia. Individuality and creativity may stimulate some people with dementia more readily than large-group activities.
- A strong working relationship was established between the VON staff and this researcher during the follow-up phase of the study. It is extremely important that applied research in the area of cognitive impairment is carried out in a multidisciplinary setting such as that at SERC. The researcher was able to establish stronger relationships with the participants, schedule interview sessions more effectively as not to disrupt favourite activities, and obtain a lot more background information with the continued assistance of the VON staff. Such collaboration should be the cornerstone of research in this area.

The conclusion of this study will thus suggest that future studies of facilitated storytelling and computer use by people with dementia are separated until such a time that appropriate equipment and software can be implemented. Appropriate equipment may involve computer touch screens, simplified interfaces, and large-key keyboards. Appropriate software includes the Digital Memory Box developed by the Sheridan Elder Research Centre, which allows the facilitator to individualize each session and thus maximize the participant's opportunities to use and interest in using the computer.

5. Conclusions

The identification of common themes in the stories of people with dementia is an important contribution to the study of personhood within this population. It is clear that diminished cognitive ability or decreased emotional control do not preclude planning for the future, nor do they reduce the expression of creativity. Memory boxes and life stories assist family members and primary caregivers in this maintenance process, as shown by the overwhelmingly positive comments of the caregivers involved. However, in-depth training on how to use such memory devices is required.

This follow-up study clearly defined the current and future directions for research at the SERC Internet Café. The development of innovative, web based reminiscence tools with and for people with early stage dementia is a very important goal. The development of digital memory boxes, that could be personalized or thematic, would be an example of such innovative software. This could facilitate communication between family members who may be geographically removed or professionally engaged e.g. one caregiver inquired about a copy of the story that could be saved to a disc for the grandchildren. The state-of-the art equipment of the Internet Café, the innovative Day Program and consumer testing facilities at SERC provide the ideal environment for the development of such tools.

The second direction involves the development and consumer testing of age appropriate, web based games and applications to encourage communication and interaction between older adults with dementia and others. The lack of interest in computer use points to a need for software and hardware that is more responsive to the changing needs and abilities of individuals with dementia.

Additionally, applications and tools designed for people with dementia must have the capability to be *individualized* to each person, based on the great variety in communication styles and abilities due to variable disease progression. Although the functionality of such programs should be adapted to the abilities of people with dementia, the complexity of topics should not be assumed to diminish with progression of disease. It appears that time and familiarity allow for a richer and more fulfilling interaction between a person with dementia and the speech partner.

Finally, practical research must be built upon a foundation that addresses Internet use

patterns of older adults, and the unique challenges encountered by individuals with dementia. Researchers in this study had difficulty engaging the interest of the participants in computer use due to the lack of computer and Internet applications that stimulate the attention of a person with deficits associated with progressive dementia. This will allow SERC researchers to develop and assess an educational program to teach web designers to optimize their web sites for older users.

6. References

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