

THE IMPACT OF SUPPORTED CONVERSATION STRATEGIES ON PERSONS WITH
ACUTE VERSUS CHRONIC APHASIA AND THEIR CONVERSATION PARTNERS

A Thesis by

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Bachelor of Arts, Wichita State University, 2007

Submitted to the Department of Communication Sciences and Disorders
and the faculty of the Graduate School of
Wichita State University
in partial fulfillment of
the requirements for the degree of
Master of Arts

August 2009

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts with a major in Communication Sciences and Disorders.

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DEDICATION

To my mother for her love, encouragement, and strong belief that I could accomplish whatever I set my heart on.

ACKNOWLEDGMENTS

I would like to thank my advisor, Julie Scherz, for her encouragement, support, and guidance through this process. I would also like to thank my other thesis committee members, Anthony Dilollo and Louis Medvene, for all their input and assistance. I would like to express my thanks and love to my children, Jeff and Kimberly for their support. Finally, a special thank you to Douglas Parham and all my friends who have contributed their time and support to help me complete my thesis.

ABSTRACT

The purpose of this study was to determine if a difference existed in the efficacy of “Supported Conversation for Adults with Aphasia” (SCA) strategies between persons in the acute and chronic stages of aphasia. Additionally, did any change occur in the personal satisfaction of conversational interaction when SCA strategies were implemented and if so, was there a relationship between the degree of change and the stage of aphasia.

Four dyads representing two persons with acute aphasia and their conversation partners and two persons with chronic aphasia and their conversation partners participated in the study. Data was obtained from three 5-minute videotaped conversations for each dyad at pre-, post-, and 1-month post-training phases. A half-day group training session in SCA strategies, in addition to a short individualized training session was provided to the conversation partners of each dyad prior to the post-training videotaping.

Measures were used to assess the skill of the PWA for conversational interaction and transaction and the ability of the conversation partner to both acknowledge and reveal the competence of the PWA during a communicative interaction. A five-point analog scale was used to assess the personal satisfaction of dyad members after each videotaped session. Informal interviews were held with the participants of each dyad at the end of the study to provide qualitative data and additional study support.

At the end of the study, no difference was suggested in the results between persons with acute and chronic aphasia at the post-training phase when the use of SCA strategies was implemented. Additionally, although all dyads showed a trend towards a positive change in personal conversation satisfaction at post-training and 1-month post-training, the acute dyads displayed a greater degree of change at these phases.

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CHAPTER 1

INTRODUCTION

Aphasia can be defined as “a language disorder due to brain damage that results in impairment in the comprehension and/or formulation of language and can affect both the spoken and written modalities” (Roth & Worthington, 2005, p.202). A cerebrovascular attack (CVA) or stroke represents the most common cause of aphasia; however brain tumors, head injury, and brain infections may also be etiologies (Roth & Worthington).

The traditional definition of aphasia has been one of an impairment of body function and structure (Simmons-Mackie & Kagan, 2007). The influence of a social model however, has motivated a change in the focus of treatment of aphasia in the clinical application of speech-language pathology practices (Cruice, 2008). Defining the effect of a communication disability on the person as a whole, rather than merely describing the symptoms of the disability, provides a more encompassing and complete definition of that disability. Doing so provides a more inclusive view of the effect of a communication disability on a person’s resultant quality of life (QoL). Since communication is required for most daily activities, the disabling impact of aphasia individuals and their families can be devastating and have significant adverse repercussions (Simmons-Mackie & Kagan).

Recent revisions to the framework of the *International Classification of Functioning, Disability, and Health* (ICF) reflect the new ideological change to a social model by including an inclusive perspective in their defining framework. This perspective contributes to an “understanding of quality of life by providing a conceptual structure that enables clinicians and

researchers to reflect on how functioning and disability interrelate with the client's quality of life" (Cruice, 2008, p.42).

A medical model versus a social model

The Western medical model has typically treated individuals on a physical one-dimensional plane, failing to recognize the importance of holistic or whole person management. Simmons-Mackie (1998) suggested that this medical model focused primarily on restorative treatment to improve the language and/or cognitive impairments incurred by the brain injury. Little attention has been provided to the long-term communication consequences of aphasia (Kagan, 1999). Helping a patient achieve true quality of life, however, involves more than merely managing the disorder but rather an integration of treating the physical changes, in addition to acknowledging and caring for the psychosocial conditions experienced by both patients and their communication partners (Fox, Poulsen, Clark Bawden, & Packard, 2004).

Due to the communication impairments typically displayed in individuals with aphasia, many families find it difficult to adapt and cope with the encountered social changes. Families living with aphasia often have unmet needs despite intervention provided in hospital and rehabilitative environments (Denman, 1998; Michallet, LeDorze, & Tetreault, 2001). The resultant communication impairments of aphasia often disrupt family dynamics, alter or reverse familial roles, and can change or disrupt previously established social relationships (Fox, et al., 2004).

Though social isolation due to communicative impairment is one of the most frequently reported consequences of aphasia (National Aphasia Association, 1988), the psychosocial intervention often required for facilitation of better communication within family units is often not considered to be within the sphere of speech-language pathology (Simmons-Mackie, 1998a). This

narrow view of service delivery within the field of speech-language pathology, however, has started to change over the past several decades (Kagan, 1999), with many experts in the field of aphasia becoming interested in the consequences of aphasia and its impact on functional communication (Kagan 1998). The etiology for much of this vision change lies in the speech-act theory, which hypothesizes that communicative intent is important and communication is more than merely a verbal exercise (Kagan, 1999). Byng, Pound, and Parr (2000) regarded the emotional and social consequences of aphasia as legitimate areas for speech-language pathology intervention and presented a justifiable case for speech-language pathologists to work simultaneously in the communication and psychosocial realms for persons with aphasia.

Collaborative role of family in the communication skills of persons with aphasia

Individuals and families affected by aphasia play an integral role in the intervention process. Simmons-Mackie, Kearns, and Potechin (1987) stated that

Studies have documented that family members sometimes adopt strategies that are counterproductive to effective communication or do not facilitate communication with the person with aphasia. Thus, it appears that patient management might be enhanced by providing family members with information on intrafamily communication (p. 584).

Implication for change in the scope of practice for speech-language pathologists

In following the medical model's definition of aphasia in its traditional sense, the field of speech-language pathology has been diligent in its efforts to restore, improve, and compensate for the language disabilities associated with aphasia (Kagan, 1995). An underlying aspect of the medical model, however, implies that once an individual with aphasia ceases to improve, then treatment stops, therapy terminates and the person is diagnosed as chronically aphasic.

Unfortunately, also within the medical model “chronic aphasia is not regarded as a valid area for professional intervention” (Kagan, 1995, pp. 18-19) resulting in many persons with aphasia becoming socially isolated after their discharge from therapy (National Aphasia Association, 1988).

As the field of speech-language pathology shifts from a medical model to a social model, new approaches must come forward to address not only the traditional aspects of treatment, but also the psychosocial impact of aphasia on stroke survivors and their families. Supported Conversation for Adults with Aphasia (SCA) is one such approach that trains specific facilitative techniques to conversation partners and may facilitate more successful conversation opportunities (Kagan, Black, Felson Duchan, Simmons-Mackie, & Square, 2001). It has been suggested that SCA may efficiently modify communication acts and capitalize on the preserved cognitive and social abilities of the person with aphasia (Kagan, et al. 2001).

CHAPTER 2

REVIEW OF THE LITERATURE

A paradigm shift in health care occurred in the late twentieth-century. This shift has been described “as a switching of focus from disease to the maintenance of health; from hospital-based to community-based care; from management of acute infectious illnesses to that of long-term, chronic conditions; from cure to prevention and maintenance; from intervention to monitoring; and from treatment to care. In other words, the patient is becoming a person” (Parr, 1998, p. 848).

In 2001, revisions to the World Health Organization’s (WHO) International Classification of Functioning , Disability, and Health (ICF) reflected this shift in perspective by moving toward a more social model for the treatment of persons with aphasia (WHO, 2001). The ICF is an internationally recognized classification system that provides a framework and language consensus for the definition of a disability in an expanded scope. It addresses the domains of Body Structure Function, Activities and Participation, and Personal and Environmental Context (Simmons-Mackie & Kagan, 2007).

Recent research in the area of aphasia also reflects the dynamics of this paradigm shift. The field of aphasiology has typically held a primarily medical and experimental orientation, and prior research has provided little discussion about the social consequences of aphasia. In the last 10 years, however, aphasiologists have begun to adapt a social model into their research constructs and turn their focus to quality of life issues, particularly the impact aphasia has on an individual’s ability to access and participate in communication and social relationships (Simmons-Mackie & Damico, 2007).

Aphasia is not a static disorder. It continues to demonstrate its effects throughout one's life cycle. For many individuals aphasia does not improve, but becomes an issue to which the person with aphasia and their family must continually adjust and adapt their lives (Parr, 2001). Available literature suggests that the social consequence for people with aphasia is often an exclusion of full participation in peer conversations, obtaining information, and participation in important life decisions (Byrng, et al., 2002; Kagan, et al., 2001; Kagan & Leblanc, 2002; Le Dorze & Brassard, 1995; Michallet, Tetreault, & LeDorze, 2003; Parr, Byng, Gilpin, & Ireland, 1997; Simmons-Mackie & Damico, 2007).

The communication disabilities found within the aphasic community produce communicative barriers to standard participation for both the persons with aphasia and their families (Byng, Pound, & Parr, 2000; Garrett & Beukelman, 1995; Kagan, 1998; Kagan et al., 2001; Lyon, Cariski, Keisler, Rosenbek, Levine, Kumpula, et al., 1997; Oelschlaeger & Damico, 2000; Simmons-Mackie & Kagan, 1999; Simmons-Mackie & Damico, 2007). For the family of a person with aphasia, the alterations in communication, changes in interpersonal relationships, and restriction of activities demonstrates that aphasia can be the mitigating factor in handicapping not only the person with aphasia, but their families as well (LeDorze & Brassard, 1995).

In the last decade, researchers have found a number of strategies and resources that support and demonstrate the provision of communicative contexts and means that enable communicative participation for persons with aphasia, even those classified as severe and moderate-to-severe. This can have significant effect on the functions of everyday life, the social participation, and quality of life for persons with aphasia and their caregivers (Simmons-Mackie & Kagan, 2007).

Application of ICF to quality of life issues for Persons with Aphasia

The World Health Organization Quality of Life Instruments (WHOQOL) Group defined quality of life (QoL) as an “individual’s perceptions of their position in life in the context of the culture and value system where they live and in relation to their goals, expectations, standards and concerns” (1997, p.1). Ross and Wertz (2003) expanded on this definition stating that the WHOQOL Group definition of QoL is “presumed to be inherently influenced by disability, physical health, psychological state, level of independence, social relationships, environmental factors, and personal beliefs” (p.355). The medical model of disability has traditionally focused only on the functional limitations of an individual and provided little management for quality of life issues for aphasia survivors. The social model is designed to address the psychosocial aspects of aphasia and improve the quality of life for persons with aphasia and their families. Ross & Wertz (2002) suggested that within the social model, a disability does not originate from the functional limitation of the individual but rather from an inability of the social and physical environment to accommodate their needs.

To address the quality of life (QoL) issues faced by persons with aphasia and their families, Kagan adapted the ICF model into a diagram called the Framework for Outcome Measurement (FROM) (Simmons-Mackie & Kagan, 2007). This framework features quality of life as the central component for people affected by aphasia. The overlapping of ICF domains (i.e., Body Structure and Function, Activities and Participation, and Personal and Environmental Context) illustrate how all areas intersect and interact with one another in a dynamic relationship to create QoL (Simmons-Mackie & Kagan, 2007). In the FROM framework, Kagan suggested that therapy addressing one ICF domain (i.e., Body Structure and Function, Activities and Participation, or Personal and

Environmental Context) would have ramifications on the other ICF domains since all constructs were interconnected and interrelated (Simmons-Mackie & Kagan, 2007).

Although QoL is not explicitly addressed on the current ICF classification, it is expressly included on the adapted FROM framework (Simmons-Mackie & Kagan, 2007). Simmons-Mackie and Kagan proposed that intervention approaches targeting conversational support for adults with aphasia by a conversation partner met the stated guidelines of the ICF classification for the domain of Activities and Participation.

Simmons-Mackie and Kagan (2007) further proposed that barriers in communicative environments produced barriers as adept in isolating an individual from full social participation as those found within physical environments. These authors suggested that interventions that targeted the physical, attitudinal, and social factors of an individual's immediate environment or interventions that provided increased communicative accessibility within a community at large (i.e., health care, employment) eliminated many barriers for communicative and social participation for persons with aphasia. Therefore, Simmons-Mackie and Kagan suggested that the guidelines for the Environmental domain of the ICF classification was also met in the adapted FROM framework (see Figure 1 below). The implementation of the FROM framework into speech therapy programs for persons with aphasia provides a move from the traditional definition of aphasia as an impairment of body function and structure to a more socially defined and encompassing definition of the ICF constructs on life quality for persons with aphasia (Simmons-Mackie, 2007).

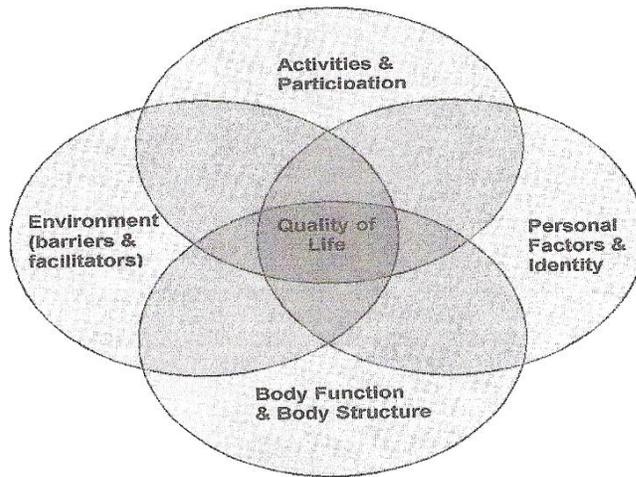


Figure 1. Framework for Outcome Measurement (FROM). ³ (From the Aphasia Institute, Toronto, Ontario, Canada)

Note. From “Application of the ICF in Aphasia” by Nina Simmons-Mackie & Aura Kagan, 2007, *Seminars in Speech and Language*, 28 (4), Copyright by Thieme Medical Publishers, Inc. Reprinted.

Role of conversation in communication

Conversation is crucial to everyday life. It is the vehicle used to express ideas, feelings, and needs and it provides a major resource for social connections. Competencies in these areas are highlighted through conversational abilities. Aphasia can often mask an individual’s competency and may unjustly shut the door on opportunities for social inclusion (Turner & Whitworth, 2006). Studies by Le Dorze and Brassard (1995), and Parr, Byng, Gilpin, and Ireland (1997) suggested that individuals who were unable to express what they think, feel, or know during conversational interactions were often looked upon as incompetent and were denied communicative access. This

in turn directly impacted the psychosocial well-being and quality of life for the person with aphasia (Kagan, 1998).

Communication fulfills two primary goals: providing for the exchange of information and affording social interaction (Kagan, 1998; Simmons-Mackie, 1998a; Simmons-Mackie & Damico 1995). Traditional speech therapy has tended to concern itself with only the first goal, the exchange of information or the actual transaction (Simmons-Mackie, 1998a). A more socially motivated intervention model focuses on both the exchange of information and the collaborative partnership of participants to fulfill the criteria of a communicative interaction. Satisfying the dual goals of a social model approach may assist in alleviating many social consequences of aphasia and help to promote the use of communication within more authentic contexts (Simmons-Mackie, 1998a).

Psychosocial Impact of Aphasia

Parr, et al., (1997) addressed the consequences and significance of long-term aphasia in the lives of 50 people with aphasia. Their findings highlighted the impact of aphasia across a continuum of social experiences. In the study, persons with aphasia reported difficulty in not only communicating with family and friends, but also continuing to work or acquire an education, due to aphasia related complications. Additionally, they noted that a lack of financial resources did not allow the pursuit of hobbies or permit the maintenance of their previous lifestyle. They further reported trouble in sustaining relationships and retaining a personal identity. Other problems noted included difficulty accessing and understanding information, in addition to negotiating their rights and responsibilities as an individual, a spouse or partner, a family member, a participant in various institutions and communities, and as a citizen (Parr, 2001). Clearly, aphasia can and does impact every aspect of a person's life.

Aphasia is also a family disorder, affecting not only the person with aphasia, but also their family members (Scholte op Reimer, de Haan, Rijnders, Limburg, & van den Bos, 1998; Smith, Norrie, Kerr, Lawrence, Langhorne, & Lees, 2004; Visser-Meily, 2006). Changes in family dynamics and the alteration or reversal of familial roles can be dramatic when impairments resulting from aphasia disrupt and affect the usual coping mechanisms and communication patterns (Visser-Meily, 2006; Williams, 1993). Coping strategies for both persons with aphasia and their conversation partner can be hampered by the couple's difficulty in communication (Artes & Hoops, 1976; Christensen & Anderson, 1989; Michallet, LeDorze, & Tetreault, 2001). Breakdowns in communication can leave families with feelings of frustration, anger, isolation, loneliness, and increased stress within the family unit itself (Denman, 1998; Michallet, et al., 2001).

As families strive to regain their sense of balance, secondary feelings of loss and grief may begin to set in. Kubler-Ross (1969) described grief as a complex response to loss, identifying five stages of grief: denial, anger, bargaining, depression, and acceptance. She described these stages as valid coping mechanisms, allowing an individual the time to work through their loss or disease process. The tragedy of a sudden loss, such as that typically seen in strokes, finds most individuals unprepared for the ensuing grief. As with a physical loss, the grief response can occur as a reaction to the loss of abilities and the impact of communication limitation for both the person with aphasia and their family (Fox, Poulsen, Bawden Clark, & Packard, 2004; Tanner & Gerstenberger, 1988). These feelings of loss and grief can place further stress on family relationships and inhibit coping strategies. The familiar bond between partners can be disturbed as one-sided relationships, either temporarily or permanently, may develop (Visser-Meily, 2006). It has been estimated that 20-55% of primary caregivers working with stroke patients suffer from some form of emotional disorder

(e.g., depression, anxiety) (Visser-Meily, 2006). Clark and Smith (1999) noted that family dysfunction (e.g., inability to solve problems and adapt to new roles and responsibilities, and decreased family communication) was reported in over 50% of stroke survivors and 40% of their spouses.

A spouse's ability to use effective and satisfactory coping strategies can be significantly restricted by the couple's difficulty in communicating (Artes & Hoopes, 1976; Christensen & Anderson, 1989). If by applying the social model of therapy, one looks at these communication difficulties as an interactive process rather than transaction of message only, then "The person with aphasia cannot be seen in isolation but must be treated as a social unit involving those people with whom s/he communicates" (Cunningham & Ward, 2003, p.688).

Studies Focusing on Communication Partner Training

Conversation is considered quintessential to human interactions and relationships. It encompasses the diversity of motivations, purposes, and opportunities that occur in its ever-changing context (Armstrong & Mortensen, 2006). Informal observations by spouses and clinicians have indicated that once the person with aphasia moves from structured clinical settings into more unstructured and less predictable environments, such as those found at home and in the community, the form and effectiveness of their communication tends to decrease (Lyon, 1992). Therefore, a lack of communication participation is often reflected in the conversational interaction between the person with aphasia and their conversation partner(s). Clinical evidence has shown, however, that when individuals with aphasia are properly supported in conversation, they are able to attain a level of competency in their communication that is far better than thought possible (Davis & Wilcox, 1985; Lyon, 1992).

Over the last 10 years, as focus has been directed toward a more social model of aphasia treatment, research studies have begun to investigate the effect of improving the skills of the communication partner to facilitate greater gains in the communication abilities of adults with aphasia. Practitioners within the aphasiology community have become increasingly aware that the person with aphasia is not solely responsible for successful communication (Cranfill, Simmons-Mackie & Kearns, 2005). Communication between partners must be a two-way event, with both parties sharing the responsibility for the exchange of information by shifting and alternating the communicational roles of speaker and listener (Holland, 1998).

Holland (1998) noted that the concept of ‘functional independence’ is antithetical to communicating, stating “the behaviors involved in conversation, by definition, are functionally *interdependent*” (p. 846). Holland further elaborated on that statement, suggesting that “independence for the aphasic adult is being able to hold up one’s end of a conversational interchange, with all the support that might be required from a conversational partner, or to be able to handle an increasingly satisfactory share of a communicative interaction” (p. 846). Within a communicative interaction, the social inclusion of a person with aphasia is less dependent upon their skills than that of their interactional partner (Simmons-Mackie & Damico, 2007). In a study of transactional communication, Purdy and Hindenlang (2005) found an increase in the success of transactional communication tasks and an increase in the use of facilitating strategies when caregivers were provided with education and training about using strategies for improving communicative performance between themselves and their partners with aphasia. Additional research indicated that persons with aphasia may become more empowered to use a variety of communication strategies when their conversation partner is skilled at introducing a variety of such

strategies and is able to provide the person with aphasia communication opportunities (Simmons-Mackie, 1998a).

Compensatory strategies, such as gestures and writing, often allow the person with aphasia to express their requests or ideas, but may become ineffective when the transaction breaks down. This can lead to a negative affective listener response (either overt or subtle) by untrained listeners or perceived as a failed communicative attempt by the transactional partners. When an attempted communication strategy by a person with aphasia is met with a negative affective listener response, further use of that strategy is typically inhibited (Simmons-Mackie, 1998a). Failures in strategy use, negative affective listener response, and breakdowns in communicative interchanges can cause the person with aphasia to 'lose face' (Simmons-Mackie, 1998a). Kagan observed that persons with aphasia often believe that others see them as 'stupid' due to negative affective listener reactions or feedback received for the use of unexpected strategies or a breakdown in communication (Simmons-Mackie, 1998a).

Simmons-Mackie and Kagan (1999) looked at the communication strategies used by 'good' vs. 'poor' speaking partners of individuals with aphasia. Ten new volunteer recruits, with no prior experience with persons with aphasia and 10 persons with moderate-severe to severe aphasia were paired and then videotaped during conversational interactions. Ratings from three independent judges, two speech-language pathologists, and one graduate student ranked the volunteers from "best" to "worst" as communication partners for the dyads. Conversational analysis was used to analyze the two highest and lowest rated volunteers. Results indicated that the discourse patterns of the "best" partners contained more acknowledgements (e.g., 'mhm', head nods) and congruent overlap (e.g. shakes head in unison with person with aphasia), but fewer disjunct markers ("well"). Another pattern depicted in the discourse of the "best" communication partners was

accommodation to nonstandard methods of interaction (e.g. gestures such as ‘thumbs up’) and strategies that allowed ‘face-saving’ for the person with aphasia during clarification sequences (using clarifying questions and guesses during repair sequences). The findings of this study suggested that the social relationship of a conversational interaction is just as important as the exchange of information and it indicated types of communication behaviors that might be included in the training of conversation partners (Howe, 2004; Simmons-Mackie & Kagan, 1999).

Communicative accessibility is critical for every individual, especially within his or her family or social unit. Simmons-Mackie et al. (1987) demonstrated that training the conversation behaviors of the spouse of a person with aphasia improved the conversational interaction within the dyad in a treatment environment and led to a generalization for more spontaneous conversations between the two communication partners in more naturalized environments. Boles (1997), Hickey, Rogers, and Olswang (1995), and Simmons, et al., (1987) all found strong correlations between approaches that utilized direct, supported conversation training of the communication partners of persons with aphasia and an overall improvement in the communication relationship among the conversation participants. Garrett and Beukelman (1995) demonstrated a positive change in the interactive patterns of an individual with severe aphasia when provided partner support. Simmons, et al. (1987) noted that the communication of a person with aphasia exhibited an improvement after a family member was trained in strategies to facilitate and support the conversational interactions of the aphasic partner.

Supported Conversation for Adults with Aphasia

More and more speech-language pathologists are beginning to embrace quality of life issues and follow practice frameworks such as FROM (Simmons-Mackie & Kagan, 2007). In doing this, they will need new intervention approaches that look beyond the structural or physical

management of aphasia and focus on the treatment of the functional communication needs and psychosocial impact. One such approach is *Supported Conversation for Adults with Aphasia* (Kagan, 1998; Kagan, 1999).

The concept of Supported Conversation for Adults with Aphasia (SCA) was structured as an intervention approach designed around a social model to address both the transactional communication needs and the psychosocial concerns of persons with aphasia (Kagan, 1998; Parr, 1996; Simmons-Mackie, 1998a). Individuals with aphasia have a natural inclination towards using speech to communicate and tend to resist alternative communication modalities. Due to possibly limited or unsuccessful social interactions, however, these individuals may also exhibit decreased initiative to communicate, which over time can lead to depression and a lack of personal and social confidence and value (Alarcon & Rogers, 2007). Communication partners may compound the problem by having the high expectation of a return to a pre-morbid level of speech for the individual with aphasia. The communication partners may be unfamiliar with and/or have a strong discomfort with communication tools. They may focus solely on the message transaction. This in turn can develop a history of unsuccessful and unrewarded communicative interactions with the person with aphasia and result in increased feelings of frustration and isolation for the transactional participants (Alarcon & Rogers, 2007).

Kagan (1999) examined the efficacy of SCA in volunteer conversation partners of individuals with aphasia. The study results indicated significant support for intervention approaches that emphasize the training of communication partners for adults with aphasia. Kagan and Leblanc (2002) noted that SCA training may increase access to communicative opportunities for the person with aphasia and their conversation partners by reducing communication barriers. Kagan et al., (2001) indicated that improving the skill of the conversation partner through SCA

training could increase access to opportunities for conversation by reducing communication obstacles for the person with aphasia.

The overall philosophy of a supported conversation approach is to reduce the psychosocial consequences of aphasia and improve the quality of communicative interaction between persons with aphasia and their communication partners. What sets supported conversation apart from other supported communication interventions for persons with aphasia is that SCA focuses intervention on the *communication partner* (Alarcon & Rogers, 2007). SCA treatment objectives include increasing the quality of communication for participants and increasing the use of supportive communication behaviors by the communication partner, thereby decreasing their use of non-supportive communication behaviors (Alarcon & Rogers, 2007).

The design of SCA is consistent with the two primary goals of communication: to provide for the exchange of information and provide social interaction. The SCA approach advocates the teaching of the person with aphasia and his or her conversation partner in techniques that incorporate and use the multiple modalities of communication (i.e. spoken language, gestures, writing and drawing). SCA focuses on amplifying the strengths of the person with aphasia and reducing the barriers for communicative participation by training the conversation partner in skills that can lead to increased communicative opportunities, while at the same time promoting the communicative ability and competence for the person with aphasia. By encouraging a reduction of the social consequences due to aphasia for both the person with aphasia and their conversation partner, SCA typifies the characteristics required of an intervention method guided by a social model (Simmons-Mackie, 1998a).

Central to SCA is a focus on communication as a collaborative effort. In contrast to the traditional stance of the person with aphasia as an independent entity, SCA emphasizes the

interdependent communicative relationship between the person with aphasia and the conversation partner. By following the social model, SCA stipulates that both partners share equal responsibility for a conversational interaction. Each must contribute to the negotiation of the intent and social satisfaction of the exchange (Simmons-Mackie & Kagan, 1999).

As an intervention technique, SCA evaluates outcomes not only in terms of language deficits but also from the perspective of the social consequences and quality of life issues that result from aphasia. SCA is an approach that views the person with aphasia as part of a larger social unit (e.g., family, friends, community) and views these socially relevant communication partners as vital components in the therapy model for the intervention in the treatment of aphasia (Kagan, 1998). By incorporating the use of multiple modalities (e.g., gestures, drawings, pictographic material) in a therapy model, SCA strategies can help facilitate an increase in supportive communicative behaviors for both the conversation partner and the person with aphasia (Kagan, 1998).

Through training in SCA, communication partners are provided specific skills for supporting the communicative transaction *and* communicative interaction by providing supportive feedback to the person with aphasia. This response provides a shift in expectation for not only the conversation partner, but also the person with aphasia. When a speaker's strategy is perceived as being positive and supported, it reinforces the use of that strategy and provides the speaker with a feeling of competence within the interaction (Kagan, 1998; Simmons-Mackie, 1998a).

The underlying theory for SCA was build upon Kagan's expansion of an understanding of aphasia as traditionally defined in neurogenic and linguistic/cognitive terms (Kagan, 1998). She introduced the concept of skilled conversation partners and an aphasia-friendly environment as being the "communication ramps" for persons with aphasia. These "communication ramps"

provide the medium for greater accessibility and inclusion in communicative goals (Kagan, 1998). SCA strategies are taught in one-day workshops that are conducted in small groups. SCA techniques are addressed in four training modules: 1.) conceptual & motivational – introduces participants to the idea of ‘supported conversation’ and provides basic generalized information on aphasia; 2.) technical – provides specific ways for a conversation partner to acknowledge and reveal the competence of the aphasic partner; 3.) integrative role-play – helps participants to integrate and practice information learned in previous modules; and 4.) evaluation – allows participants to rate the skill of a conversation partner during a videotaped interaction between the conversation partner and a person with aphasia (Kagan, 1998). Clinical experience has shown that a person with aphasia is more empowered to use a variety of communication strategies when their conversation partner is skilled at introducing ‘novel’ strategies, such as writing, drawing, and pictures (Simmons-Mackie, 1998a).

Finally, SCA addresses the need for communication within authentic environments. An underlying concept of SCA is maintaining the natural flow of conversation. This key idea is what differentiates SCA from similar sounding approaches (Kagan, 1998). Simmons-Mackie (1998a) stated, “Kagan has grasped the importance of elements of conversation, and integrated these elements into the training of communication partners” (p. 833). By implementing the strategies and techniques of SCA, an increase in communication abilities and opportunities within the familial dyad may improve a family’s capability to adapt and cope with the myriad of psychosocial and functional communication challenges afforded by aphasia.

Although research has primarily focused on the use of SCA in persons with chronic aphasia, its use has also been suggested by Kagan (1999) and Simmons-Mackie (1998b) for persons in the acute stage of aphasia. A change in philosophy has been proposed by Simmons-

Mackie (1998b) in which the psychosocial aspects of aphasia are provided treatment legitimacy from the onset. Kagan (1999) stated “Candidacy for supported conversation should not, moreover, be limited to the chronic stage of aphasia” (p. 118). Kagan further suggested that although the context for support will differ, the provision of supported conversation is relevant at any stage of aphasia (1999).

Purpose

The purpose of this study was to collect both quantitative and qualitative data to evaluate and compare the impact of Supported Conversation for Adults with Aphasia (SCA) strategies on individuals in chronic and acute stage aphasia and their communication partners and note if any difference in observed benefit existed between the two groups. Although much research has been recorded on the efficacy of SCA with persons with chronic aphasia (Kagan, 1997; Kagan, 1998; Lyon, et al., 1997; Simmons-Mackie, 1998a; Simmons-Mackie & Damico, 2007) little research has focused on the impact of SCA for persons in the acute stage of aphasia, as suggested by Simmons-Mackie (1998b) and Kagan (1999). Consequently, the following research questions were the focus of this study:

Research Questions

1. Does a difference exist in the efficacy of SCA between acute and chronic stages of aphasia?
2. Does the use of SCA reflect any change in personal satisfaction during conversational interactions for persons with aphasia and their conversation partner?
3. If a change does exist, is there a relationship between the degree of change in satisfaction and the stage (acute or chronic) of the individual with aphasia?

CHAPTER 3

METHODS

Participants

All participants were recruited from a group of persons with aphasia (PWA) who were receiving services at the Wichita State University Speech-Language Hearing Clinic or from Via Christi Our Lady of Lourdes Rehabilitation Center, in Wichita, Kansas.

Inclusion criteria for the persons with aphasia included: (1) native English speaker, (2) acute or chronic aphasia and (3) able to pass a hearing screening at a minimum of 35dBHL for 1000Hz & 2000Hz and 40dBHL for 4000Hz. Persons with aphasia also needed to demonstrate an ability to engage in conversation using some or all of the following modalities: verbal/gestural/written/pictures or drawings, as judged by the researcher and an experienced speech language pathologist. Additionally, each person with aphasia was required to have a primary conversation partner who displayed a willingness to communicate with the person with aphasia, using supportive conversation techniques.

To address the inclusion criteria of competency for the person with aphasia to use multiple modalities for communication purposes, the Multimodal Communication Screening Test for Aphasia (MCST-A; Garrett & Lasker, 2005) was used (see Appendix A). This instrument assessed the ability of persons with aphasia to use alternative or augmentative modalities to communicate by using pictorial symbols. The MCST-A evaluated the individuals on their use of the following eight tasks: communicating target concepts by selecting one or more pictorial symbols, choosing pictorial symbols to complete a category, telling and retelling a story using a picture sequence, choosing pictures and phrases to complete a transaction in a location (i.e., drugstore) or within a conversation (i.e., with a grandchild), telling information about a place by pointing to locations on

a simplified map, and supplementing alternative communicative efforts by spelling or gesturing. Criteria information regarding the ability of the persons with aphasia in these areas was important since pictographic material is a vital component to the SCA approach.

Exclusionary factors for persons with aphasia included: progressive aphasia; deteriorating neurogenic disorders (i.e. dementia); behavioral or psychiatric disorders as reported by family or medical history and prior learning of SCA strategies.

The severity rating of the persons with aphasia was measured by their score on the Western Aphasia Battery (WAB) (Kertesz, 1982). The biographic information for the persons with aphasia and their communication partners who participated in this study is summarized in the tables below.

Table 1

Demographic information for persons with aphasia

Person with aphasia	M/F	Age	Time post-stroke	Prior SLT	Severity of aphasia as measured by the WAB	Overall total of MCST-A scores
C1	M	50	3 years	2005-present	AQ – 70	21/32
C2	M	80	8.5 years	2000 (acute & rehab)	AQ – 91.9	28/32
A1	F	66	7 months	June 2008-present	AQ – 75.8	25/32
A2	F	77	5 months	September 2008-present	AQ – 51.5	28/32

Note. C = person with chronic aphasia, A= person with acute aphasia, M/F = male/female, SLT = speech-language therapy, WAB = Western Aphasia Battery, AQ = aphasia quotient, MCST-A = Multimodal Communication Screening Test for Aphasia (Garrett, K., & Lasker, J. 2005).

Table 2

Demographic information for communication partners

Conversation Partner	M/F	Age	Relationship
CP1	F	50	Spouse
CP2	F	70	Spouse
AP1	M	70	Spouse
AP2	M	83	Spouse

Note. CP = conversation partner-chronic aphasia,
 AP = conversation partner - acute aphasia, M/F = male/female.

In addition, the following anecdotal information should also be noted: 1) C1/CP1 reported a low level of communicative interaction and conversational partner support in their pre-morbid relationship, 2) As demonstrated by his AQ score, the participant with aphasia in dyad C2 had a near normal level of expressive and receptive language ability and 3) The persons with aphasia in dyad A2 exhibited severe apraxia of speech concomitant with her aphasia. The communication partner in A2 stated that he had bilateral hearing loss and he additionally demonstrated difficulty processing presented information and directions during the training and videotaped sessions.

Informed Consent

Informed consent was obtained from all participants. Information regarding the research project was presented in pictographic format and accompanied by key words to aid in comprehension for the persons with aphasia (see Appendix B). An opportunity to ask questions or express opinions was provided to all participants prior to the signing of consent. An example of the

consent form signed by each conversation partner prior to participating in the study is included in Appendix C.

Assessment Protocols

To assess the efficacy of SCA strategies within each dyad, the Measure of Skill in Supported Conversation (MSC) (Kagan, 2002) and the Measure of Participation in Conversation (MPC) (Kagan, 2002) were used together to provide a more encompassing picture of the conversational dynamics of each dyad. The MSC was used to judge the pre and post-training skill of the conversation partner in acknowledging and revealing the competence of their partner with aphasia. The communicative behaviors rated with this instrument included the conversation partner's use of both verbal and nonverbal communication. Verbal communicative behaviors included such categories as the conversation partner's use of fixed choice (i.e., "Would you like a ham sandwich or a turkey sandwich for lunch?") or yes/no questions. This area also rated the conversation partner's use of short, simple sentences, a slower rate of speech, and allowing the person with aphasia enough response time to compensate for any impairment in their cognitive or auditory processing ability. The non-verbal communicative behaviors rated with the MSC included categories such as the conversation partners use of: props (i.e., the communicative use of magazines, pictures, or objects to convey a message); gestures (symbolic hand signals, purposeful pointing or facial expression); and writing or drawings (see Appendix D). The MPC was used to judge the pre and post-intervention level of participation of the person with aphasia in two areas: (1) their level of interaction with their conversation partner (social connection), and (2) their communicative transactions (the number of conversational exchanges related to information, feelings, or opinions). The MPC rated these areas with respect to both the verbal and nonverbal communicative behaviors of the person with aphasia. The communicative interaction of the PWA

included categories such as initiating or maintaining a social connection by asking questions, indicating a feeling or offering an opinion to their conversation partner through the use of provided supports. The area of transaction rated the ability of the PWA to exchange informational content during the interaction through the use of supports (i.e., using gestures, writing, drawing, and/or other resource material to indicate an opinion, feeling, or choice).

The MSC used a numerical scale of 0 (no participation) to 4 (full participation) for rating conversation partners (CP) in their ability to acknowledge and reveal the competence of their aphasic partner (AP) during three 5-minute conversational interactions. A score of 2 demonstrated an adequate skill for participants on each measure. Conversation partners who scored high on their ability to acknowledge the competence of their aphasic partner were able to maintain a natural flow of adult conversation with their partner in a supportive and non-patronizing manner. In addition, they demonstrated a high level of sensitivity when their AP attempted to engage in conversation by providing appropriate encouragement, exhibiting an attitude of listening, and respectfully acknowledging when their AP became frustrated or upset in initiating or responding to communicative interactions. Conversation partners with a high rating in revealing competence used short, simple sentences when verbally communicating with their partner with aphasia. They provided fixed choice questions and verified the accuracy of their partner's response. The CP's use of gestures, writing, drawings, and response to communicative cues (e.g., facial expression, providing adequate time to respond) was also rated.

A similar numerical scale is used to score the MPC. A score of 0 (very poor) to 4 (outstanding) was used to rate the interactions and transactions of each partner with aphasia. A score of 2 demonstrated an adequate skill for participants on each measure. The partners with aphasia were rated on their skill in sharing the responsibility for the maintenance of a natural flow

to the conversational interaction. A higher score for interaction and transaction was achieved for those partners with aphasia who initiated interactions or utilized communicative supports offered by the CP for the purpose of a communicative transaction. Participants also received a higher score for interactions that indicated a communicative intent, was pragmatically appropriate, and contained good communication skills such as eye contact and a proper facial expression. The partners with aphasia were also rated on their use of writing/drawing and resource material (e.g., pictures) (see Appendix E).

In order to evaluate quantitative changes in the functional communication performance of the persons with aphasia over the span of this study, the Communicative Effectiveness Index (CETI) (Lomas, Pickard, Bester, Elbard, Finlayson, & Zoghaib, 1989) was completed pre- and post-training by the conversation partner in each dyad. This allowed the conversation partner to assess any noticeable changes in performance of their partner with aphasia in communicational situations in their day-to-day life (see Appendix F).

To assess the perspective of both the person with aphasia and their partner on their individual satisfaction with the conversational exchanges obtained during this study, conversation satisfaction questionnaires (CSQ) were provided to dyad members following each videotaped session. Participants were asked to rate their satisfaction on multiple aspects of the conversation, using a 5-point Likert-like scale of (1) “very dissatisfied”, (2) “dissatisfied”, (3) “so-so” and (4) “satisfied” and (5) “very satisfied”. The number of points used to score the questionnaire was kept to a maximum of five points to maintain simplicity for the persons with aphasia. Visual pictographs (i.e., happy/sad faces) also were included on the questionnaire to provide additional visual support (see Appendix G).

Design

This study consisted of a single-subject design with four case studies, with each case study involving a dyad of one person with aphasia and their conversation partner. In the first phase (A1) a pre-training baseline for conversational transactions and participation was obtained by scoring a conversation between dyad participants without the use of the supported conversation for adults with aphasia (SCA) strategies. The intervention phase included didactic training, group training of conversation partners in key concepts of SCA and individual training of conversation partners for each dyad. A second conversation was videotaped within one week of the completion of the intervention training. Each dyad's conversational transactions and member participation were scored (B) while using SCA techniques. A final phase (A2) was conducted with each case 1 month after the post-training (B) assessment. This third conversation was videotaped and scored to evaluate the carryover and maintenance of the use of SCA techniques.

Procedures

Prior to initiating the study, the conversation partners completed an AAC – Aphasia Topic and Vocabulary Inventory (Beukelman, Garrett, & Yorkston, 2007). From the completed inventory, the research team chose three topics of interest for each dyad to personalize the conversational topics used during the recorded sessions of the study (see Appendix H).

Data was collected for each dyad from three separate videotaped, semi-structured conversational sessions. The recorded sessions lasted 15 minutes in length and were broken down into three 5-minute conversational interactions. Dyads discussed three topics during each session, using a different, pre-selected topic for each of the 5-minute interactions (e.g., holidays, politics, family). A 3-minute break was offered to each dyad between the recorded conversations. The taped sessions took place in a quiet room at the Wichita State University (WSU) Evelyn Hernden

Cassat Speech-Language-Hearing Clinic. The principal investigator monitored all conversational interactions. Written and pictographic resource material (plain paper, pen, communication board, magazines, and newspaper) were available on the table where the participants were seated during each conversational opportunity.

Pre-training baseline assessment (A1)

The first video assessment (A1) took place prior to SCA training and established a baseline for the total number of communicative interactions (i.e., authentic participation) and transactions (i.e., successful exchange of information, opinions, and feelings), for each dyad. The research team used scores obtained from the MSC and MPC to determine the baseline.

An initial assessment was taken from each participant on his or her satisfaction with the conversational exchange, using the CSQ. Additionally, conversation partners answered the CETI questionnaire to provide a preliminary evaluation of his or her aphasic partner's functional communication performance.

SCA Training Format

Following the pre-training assessment, a half-day group training session was provided to the conversation partners of each dyad by the principal investigator and a PhD faculty member of the Communication Sciences and Disorders (CSD) dept at WSU. This training session consisted of the following agenda:

9:00 – 10:00 Didactic training was provided to enhance an understanding of aphasia – what it is and its consequences. A DVD titled “Brain Attack: A Stroke Survival Guide” (National Stroke Association, 2007) was used during this module to provide additional information on stroke prevention, warning signs and the latest treatment options. The DVD featured interviews with

several leading stroke experts and shared compelling stories from stroke survivors, including celebrities Della Reese, Mark McEwen and Leann Hendrix, Miss Arizona 1998, who suffered a massive stroke in 2002 at the age of 26.

10:00 - 10:20 A DVD (Pat Arato Aphasia Centre, 2006) was shown to provide basic information on SCA and introduce key concepts in how it can be used to facilitate conversation between persons with aphasia and their conversation partners.

10:20 – 11:30 Exposure and training for the conversation partner was presented on the various communication techniques used in SCA, including specific ways for the conversation partner to acknowledge and reveal the competence of their partner with aphasia. To provide additional information and examples of supported communication, portions of the DVD “Supported Communication Intervention for Aphasia” (Alarcon & Rogers, 2007) was shown.

11:30 – 12:20 Experiential role-play was implemented between the supervising faculty member and the conversation partners. These integrative role-play scenarios simulated various conversational situations and allowed conversation partners to practice their learned SCA techniques.

Following the group training, 15 minutes of individualized training and the opportunity to ask questions was provided to the conversation partners of each dyad immediately prior to the post-training videotaping.

A post-training assessment (B)

A post-training assessment (B) was performed within one week of the training in SCA techniques. This videotaped session evaluated the opportunities for social interaction and information exchanged within each dyad and provided a comparison to their pre-training

interaction. The videotaping was stopped if a conversation partner directly asked for clarification of a strategy use or appeared unsure in their utilization of a specific strategy (e.g., drawing, use of pictures, gestures) during their conversational interaction. A reminder and/or modeling of the specific SCA strategy was provided to the conversation partner by the graduate student and then videotaping resumed.

The research team, using the MSC and MPC measurement instruments, judged the conversational interaction and number of successful conversational transactions of each participant. Participants of each dyad also rated their overall satisfaction in the communicative exchange through the provided CSQ form, and the conversation partners noted any changes in the functional communication performance of their partner with aphasia on the CETI.

Maintenance assessment (A2)

A final follow-up videotaping (A2) was made 1-month after the post-training (B) session. This videotaped session observed the maintenance use of SCA techniques for participants in each case study. Scores derived from the MSC and MPC measurement instruments, provided a final assessment of the conversational interactions and transactions for each of the case studies. The conversation partner completed a final CETI assessment for any noted changes in the functional communication performance of his or her partner with aphasia and all participants in the study provided a final rating of satisfaction for their conversational exchange, using the conversation satisfaction questionnaire.

Reliability Measures

Scoring of the MSC and MPC measurements of skill in supported conversation followed the Behavioral Guidelines for each measurement, as described by Kagan, Winckel, Black, Felson

Duchan, Simmons-Mackie, and Square (2004) and was independently performed by two members of the research team. Coding decisions were made on each set of 5-minute conversations as a whole and took into account whether the overall goals of each category were met, rather than looking at a specific or isolated set of behaviors. Scoring discrepancies were discussed until a consensus was reached in order to obtain 100% agreement between the two judges.

Chapter 4

RESULTS

Use of SCA strategies

The first question asked in this study was if a difference existed in the efficacy of SCA between acute and chronic stages of aphasia. The results suggested a positive change for all dyads when the SCA strategies were implemented and showed no difference in the trend of effectiveness of SCA strategies when compared between the acute and chronic aphasia groups at the post-training or 1-month post-training phases (see figures 2 and 3 below).

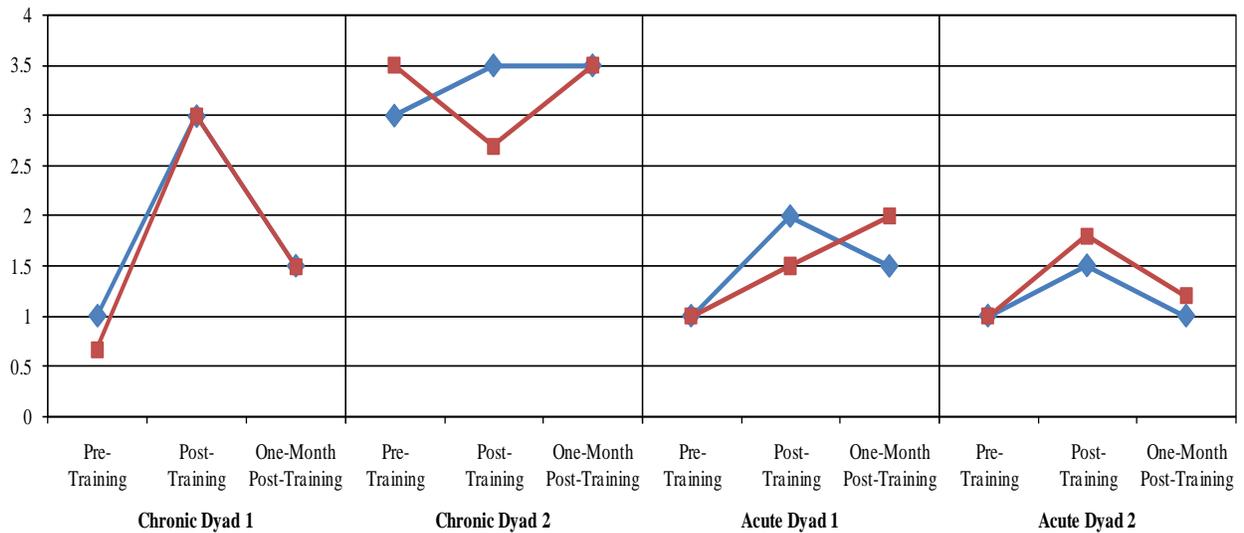


Figure 2. SCA Scores for Communication Partner (CP). Blue line indicates “CP Acknowledges Competence”; red line indicates “CP Reveals Competence”.

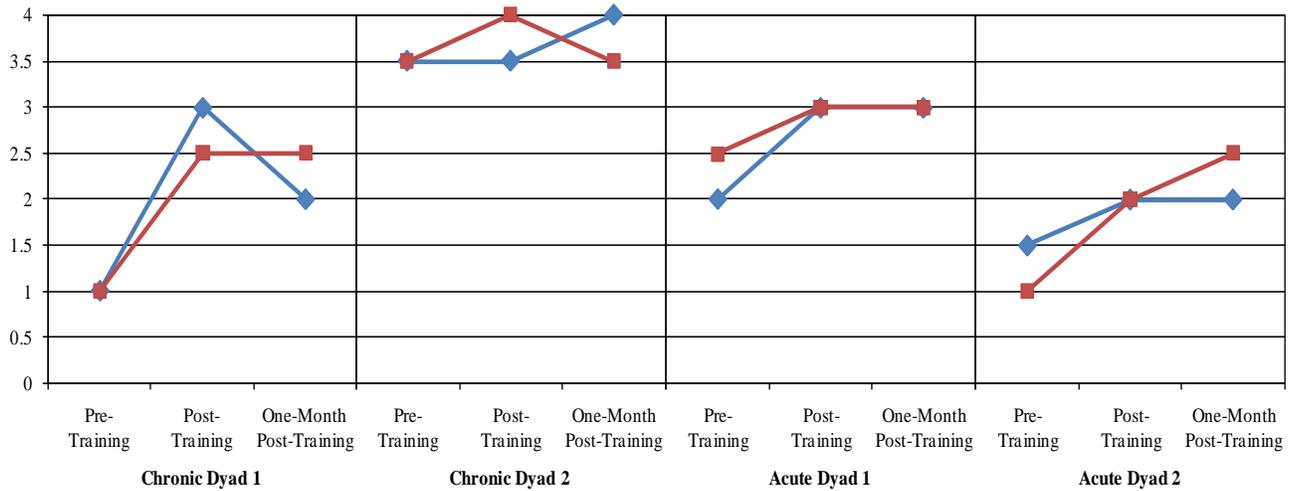


Figure 3. SCA Scores for Aphasic Partner. Blue line indicates “AP Interaction” and red line indicates “AP Transaction”.

Personal satisfaction for conversational interactions

The second research question addressed in this study asked if the use of SCA reflected any change in personal satisfaction during conversational interactions for persons with aphasia and their conversation partner. Results suggested a positive change in the personal satisfaction of all participants at the post-training phase when SCA strategies were implemented (see figure 4).

The final research question asked if a change did exist in the personal satisfaction of the dyads in their conversational interaction, then was there a relationship between the degree of change in satisfaction and the stage (acute or chronic) of the person with aphasia. Although all dyads displayed a positive change in their level of personal satisfaction, results suggested a greater degree of satisfaction between pre- and post-training phases for the acute dyads (see figure 4 below.)

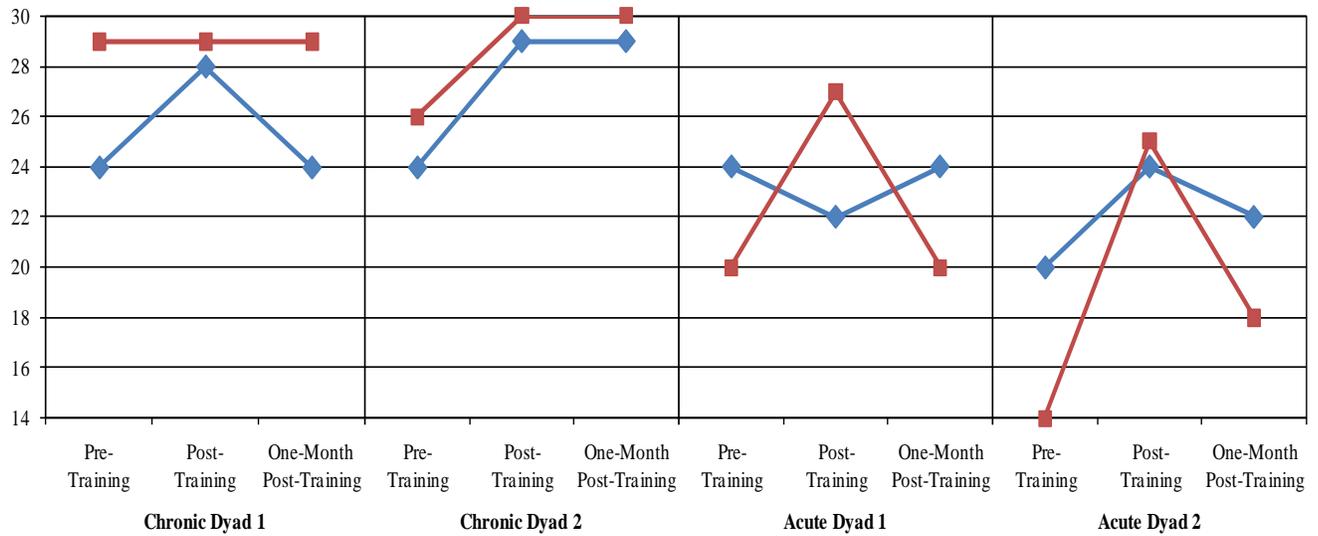


Figure 4. Conversational Satisfaction Scores. Blue line represents scores of communication partner and the red line represents scores of aphasic partner.

CETI

Results of the Communicative Effectiveness Index (CETI) (Lomas, et.al., 1989) showed a trend towards a positive change in 3 out of the 4 dyads at the post-training phase when SCA strategies were utilized. In addition, these same three dyads displayed a negative change at 1-month post-training when their conversation partners demonstrated a decreased use of SCA strategies. Results also implied that one dyad remained at a consistent level throughout all phases, showing no change when SCA strategies were implemented (see figure 5 below).

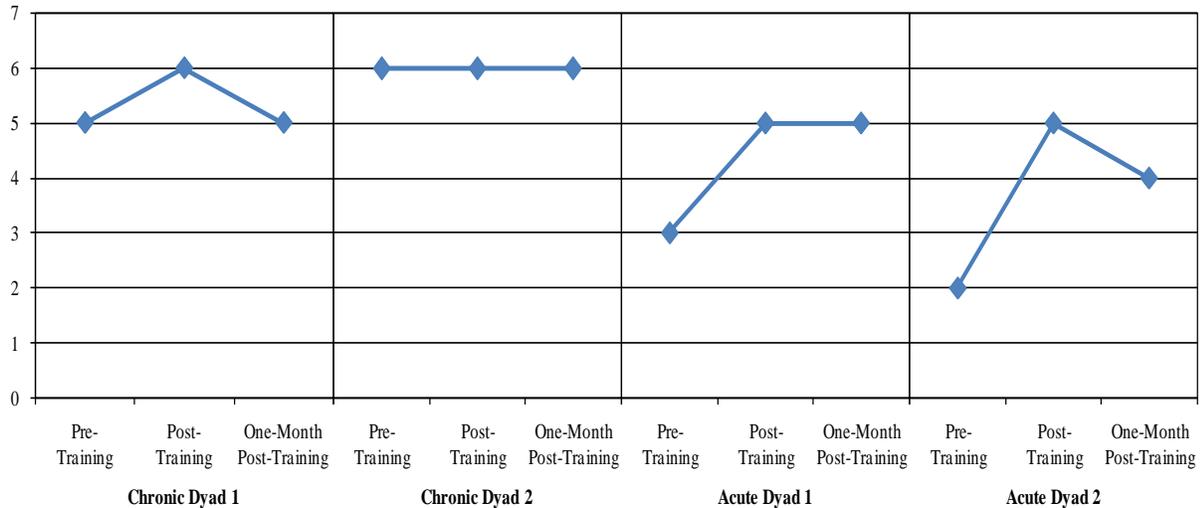


Figure 5. CETI Scores

Qualitative Data

In an informal interview at the end of this study, the participants with chronic aphasia were individually asked if they felt that the use of SCA had been beneficial. The PWA in dyad C1 pointed to the provided note paper on the table and stated “it would have helped... helped after stroke”. The conversation partner for this dyad agreed by stating, “Right after his stroke, I needed help in knowing how to communicate with him and how to help him communicate with me. I wish that we would have been shown this (SCA) then.” Participants in dyad C2 made similar statements. Although the person with aphasia in this dyad experienced a recovery of near normal expressive/receptive language and cognitive ability, he stated “It was so hard for me to communicate right after my stroke. I remember. I don’t necessarily need this (SCA) now, but we sure could have used it then.” The conversation partner for C2 demonstrated agreement when she stated “Having this (SCA) sure would have alleviated a lot of the frustration we had in trying to communicate in those weeks and months following his stroke”.

An individual interview was also held for each acute dyad where participants were asked about their feeling on SCA strategies. The person with aphasia in dyad A1 stated “It (SCA) helps me. I can’t find my words and the pen, no, the, the picture help me...it say what I want to say.” The conversation partner in this dyad agreed by stating “I can see that it (SCA) helps her, but I am not very good at drawing, so I don’t like to do it. I can tell however, that when I do, she is happier and more confident in what she is saying because I am showing her that I understand what she is trying to tell me.”

The PWA in dyad A2 responded by pointing at note paper on the table, gestured writing, and stated “helps me, helps me.” The conversation partner in this dyad stated “Well, I think it’s (SCA) a good thing, but I’m just not very good at it. I forget what I am supposed to do to help her.” His reply when asked if he observed any difference in her ability to communicate when he did use the SCA strategies was “Oh sure. She doesn’t get so frustrated or mad at me. I just forget to use them. I wish our son could learn how to do this because I think he would be better at it with her.”

Chapter 5

DISCUSSION

Prior research has focused on the use of ‘Supported Conversation for Adults with Aphasia’ (SCA) strategies in the chronic stage of aphasia (Kagan, 1995, 1998, 1999; Simmons-Mackie, 1998; Simmons-Mackie & Kagan, 1999; Simmons, Kearns, & Potechin, 1987); however results on the use of these strategies has not been explicitly established for persons with acute aphasia. The first research question asked in this exploratory study was if a difference existed in the efficacy of SCA between acute and chronic stages of aphasia. The cases described in this study suggested no difference in effectiveness for SCA strategies between persons with acute and chronic aphasia. These results are supported by both quantitative and qualitative data obtained from each participant in the study. The pre- and post-training scores showed a trend toward a positive change in the communicative interaction and transaction of persons with aphasia in both the acute and chronic stage aphasia at post-training. In addition, results of the MSC and MPC measures suggested an increase in skill for communication partners in all dyads in their ability to acknowledge and reveal the competence of their partners with aphasia after receiving training in SCA strategies, with no disparity in impact noted at post-training between the acute and chronic stage groups.

One specific dyad (C1), however, did demonstrate atypical performance at the 1-month post-training assessment. The non-aphasic communication partner in this dyad used none of the SCA strategies at the 1-month post-training taping, contrasting with the performance exhibited by the communication partners in the other chronic dyad (C2) and both acute dyads (A1, A2). The communication partner in C1 explicitly stated that she viewed the use of SCA strategies as a “crutch” for her aphasic partner and consistently displayed little attention to opportunities that could support conversational interactions with her partner. The conversation partner in this dyad

demonstrated an increased value for *speech* as opposed to *communication* for her husband. Since the primary purpose of SCA is to enhance communication, with speech viewed as only one aspect of communication, the conversation partner in this dyad appeared to have a direct conflict with the purpose of SCA as a whole and this conflict seemed to have an adverse affect on the performance of the dyad, especially at the 1-month post-training phase.

The second research question asked if the use of SCA reflected any increase in personal satisfaction during conversational interactions for persons with aphasia and their conversation partners. Results of the conversation satisfaction questionnaires (CSQ) obtained during this study suggested the greatest positive change in the overall conversational satisfaction of all participants at the post-training phase, when the use of SCA strategies by the conversation partners was most consistent. This finding is consistent with those of Kagan (1999), which state that the acquisition of skill by conversation partners in strategies that acknowledge and reveal the competency of the person with aphasia can make a significant difference to the potential for conversation satisfaction. When the partner with aphasia uses the supports provided by his/her communication partner, it allows for a more satisfying social and communicative interaction for both conversational participants (Kagan, 1999). This finding was further supported by the return to near pre-treatment levels of the CSQ at the 1 month post-training phase for dyad C1 when the use of SCA strategies declined. Both members of this dyad showed a positive change in their personal conversational satisfaction when the conversation partner used SCA strategies at the post-training phase. Their level of personal satisfaction showed a negative change however, when the conversation partner displayed a limited use of SCA strategies at the 1-month post-training.

The final question asked in this study was if a change in satisfaction did exist, was there a relationship between the degree of change and the stage of aphasia. A further analysis of the CSQ

suggested that although a positive trend was demonstrated by participants in both chronic and acute groups, a higher level of satisfaction was suggested for the persons with aphasia in the acute dyads.

A possible interpretation of the conversation satisfaction findings is the increased motivation of participants in the acute stage for communicative support and a shorter length of time to develop non-facilitative patterns of communication. This interpretation is supported by the research of Simmons-Mackie and Damico (2007) which demonstrated that when couples collaborate on a communication without sufficient supports, it can overload the demands of conversation formulation for the person with aphasia and lead to a diminishment of social participation and/or maladaptive patterns of communicative interaction. Additionally, this interpretation is supported also by the findings of Alarcon and Rogers (2007), which demonstrated that limited or unsuccessful social interactions for individuals with aphasia may lead to a decreased initiative to communicate, and which over time, can lead to depression and a lack of personal and social confidence and value. A loss of confidence and maladaptive communication behaviors have not had time to become as deeply ingrained in the conversational performance of individuals in the acute stage of aphasia as they have for those in the chronic stage.

Qualitative Data

Qualitative data was obtained to add understanding to the study results. Results of an informal interview with participants at the end of this study suggest that both the acute and chronic dyads felt SCA strategies were beneficial in re-establishing social inclusion and increased the communicative identity, competence and interaction for both the person with aphasia and his/her conversation partner. These findings offer that participants felt the SCA strategies were especially valuable in the acute stage of aphasia, when individuals and their families were the early phase of

dealing with the loss or impairment in communicative ability. Even the communication partner in dyad C1, who viewed the strategies as an unnecessary crutch for her husband, whom she expected to communicate independently, indicated that she believed the strategies could be useful for some persons.

Limitations of the study and Implications for future research

Several limitations of this study need to be acknowledged. First, the small sample size limits the strength of the conclusions and the ability to generalize the results to larger populations of acute aphasia. Future research in observing the impact of SCA strategies across a larger participant pool of individuals with acute and chronic aphasia would assist in providing further information on the efficacy of SCA on the communicative abilities of these populations.

The training provided in this study was limited to one half day. Clearly this had an impact on the results of the study. Some training aspects in this study were not provided in the same depth or detail as recommended in Kagan's protocol. Kagan provided a full day training session with in-depth instruction in the following four modules: conceptual/motivational, technical, integrative role-play, and evaluation. That training workshop was then followed within a two-week period by a 90 minute hands-on session for all conversation partners. The half-day of training provided to the conversation partners in this study was not sufficient for the establishment and implementation of SCA strategies over the long-term. This was apparent in the decreased use of SCA strategies by the conversation partners in all dyads at 1-month post-training. When the dyads returned to their home environments, they all reported a difficulty in maintaining SCA strategies under day-to-day pressures. It would be interesting to note in future research if any shortening of the amount of training provided can be shown to demonstrate the same levels of skill of conversation partners using appropriate SCA strategies compared to the protocol used by Kagan.

Another limitation could be the inclusion criteria of the dyads. Co-occurring factors of study participants that were not accounted for and which could have influenced the study results included hearing loss, age, and apraxia of speech. In addition, there was no way to determine the premorbid communication style of each dyad, except through self-reporting. The inherent characteristics present in “good” versus “poor” communication partners, as suggested by Simmons-Mackie and Kagan (1999) may also affect obtained results. Therefore, inclusionary factors in future studies might need to account for these variables.

An additional limitation of this study was that there was no control for the potentially confounding variable of spontaneous recovery by acute participants during the study timeframe. This is an inherent problem when performing research on an acute population. Spontaneous recovery is typically “greatest and swiftest during the first two to three months post-onset and slows until six months after onset” (Davis, 2007, p174). Individuals who are in this period of greatest spontaneous recovery may present a complicating factor that needs to be addressed and accounted for in future research. It is likely, however, that this factor may have had little influence in the current study. In this study, one person with acute aphasia was beyond the six-month time frame and the second person in the acute stage of aphasia was at five months post-onset when the first videotaping was obtained and seven months post-onset when the final videotaping occurred.

A final factor that could have influenced the findings of this study was the issue of a possible bias created when the investigators who participated in the collection of data and training of conversation partners, also analyzed the data. While vested interests may have biased data analyses, the researchers maintained a disciplined and thoughtful attitude during all stages of this study and every attempt was made to view all situations with an open mind and an avoidance of any pre-conceived expectations. These two investigators reached consensus in the scoring of the

pre- and post-test measures. To circumvent potential bias in the future, however, a higher standard of integrity in scoring data could be produced by having independent judges with no vested interest in the results analyze all obtained data.

Clinical Implications

Previous research has provided strong evidence that SCA is an effective intervention strategy for increasing the communicative interaction and transactions for persons with chronic aphasia (Kagan, 1995, 1998, 1999; Simmons-Mackie, 1998; Simmons-Mackie & Kagan, 1999; Simmons, Kearns, & Potechin, 1987). Results of this exploratory study suggest that SCA strategies are also effective for individuals with *acute* aphasia. This finding supports the positions of both Kagan (1999) and Simmons-Mackie (1998) who suggest that training family and friends of persons with aphasia in methods that facilitate increased communicative interaction (such as SCA) during the acute phase of the illness can provide an immediate impact on their ability to navigate the dynamic changes that have already occurred and the challenges yet to come.

Speech-language pathologists (SLP's) provide intervention for expressive and receptive language and cognitive issues in the acute stage of aphasia. By understanding SCA strategies, an SLP can apply that knowledge to facilitate an amplification of the communicative strengths and reduce barriers for communicative participation for their acute aphasia patients. When speech-language pathologists provide caregivers with education and training in the use of SCA strategies during the acute stage of aphasia a positive impact may result. This impact can include a potential increase in communicative opportunities, the promotion of communicative competence for the person with aphasia, and the facilitation of an environment that nurtures and supports the acquisition of successful communication skills for the family as a unit.

Conclusion

The implementation of SCA strategies during the acute stage of aphasia may provide vital communication support for the individuals, families, and friends impacted by the sudden loss of communicative abilities. In the acute stage of aphasia, SCA strategies may become the medium that allows those experiencing a loss of ability to express their basic needs, wants, and feelings. SCA is not an expensive or complicated technique to initiate. With proper training, conversation partners can quickly learn strategies to facilitate the communicative strengths of their aphasic conversation partner. These supportive strategies may assist in reducing not only communicative barriers, but also the development of maladaptive communication patterns that inhibit natural conversational interactions for individuals in acute and chronic stages of aphasia.

SCA does not inhibit the spontaneous recovery of communicative abilities after a loss. It does, however, provide necessary communicative supports to persons with aphasia and their families at a time when little support for conversational interaction between partners is traditionally given. If SCA strategies are provided in the early stage of recovery and the person with aphasia experiences a return to a pre-morbid level of communication, nothing is lost. The supports that allow for communicative accessibility for the person with aphasia and their family are available until they are no longer necessary. If, however, those supports are not put into place for an individual until the chronic stage of aphasia there is a high risk for the development of unsuccessful and unrewarded communicative interactions, which can lead to frustration and isolation for all interactional participants. If an individual does not recover his/her communicative ability and SCA strategies have not been introduced during the acute phase, a critical year of communicative interaction has been lost.

The introduction of SCA during the acute stage of aphasia provides strategies that may increase the opportunity for quality communicative interactions. For the person with aphasia and their family, SCA may enable an increased feeling of communicative competence and empowerment for the person with aphasia and a produce a higher sense of quality of life for the family unit as they transition from acute to the chronic stage of aphasia.

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APPENDICES

Appendix A

Multimodal Communication Screening Test for Aphasia (MCST-A)



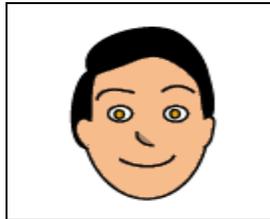
MCST-A

Summary Sheet

Subtest/Skill	Total Successful Items	Response Types (pic, gest, other)	# of Attempts	Successful Navigation of Page Location?	Record Total Number of Cues across Subtests											
					rep	exp	fb	open	page	narrow	dva	diff	conf	mod		
A. 1-Symbol Messages to Request Basic Needs or Respond to Biographical Questions	of 6															
B. Combining 2-3 Symbols	of 5															
C. Categorizing	of 4															
D. Using Environmentally-Stored Phrases in Specific Context	of 6															
E. Storytelling Using a Descriptive Scene Sequence	of 6															
F. Story Retelling Using a Descriptive Scene Sequence	of 6															
G. Telling About Locations from a Map	of 4															
H. Spelling	of 4															
OVERALL TOTALS	of 32															

Appendix B

Informed Consent
For
Research



Participant

Participant: _____

(Participant's Name will be inserted here at time of study)

Investigator: Debbie Hollinger, BA

(316) 550-6130.

Supervising Faculty: Julie Scherz, PhD, CCC-SLP

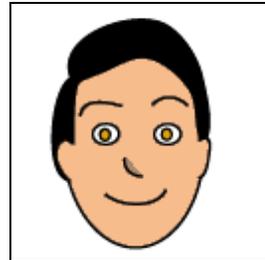
Dept of Comm. Sciences and Disorders
Wichita State University
(316) 978-5344

Anthony DiLollo, PhD, CCC-SLP

Dept of Comm. Sciences and Disorders
Wichita State University
(316) 978- 3319

Project Title: The impact of Supported Conversation for Adults with Aphasia
(SCA) strategies on persons with acute aphasia.

I want to know if



training a conversation partner is good for acute aphasia?

Does it work for persons in the acute stage of aphasia?

Yes



No



Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winckel, & E. Shumway. 1996

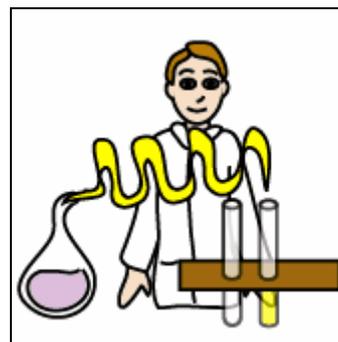
Aphasia Centre - North York, Toronto: Canada.

What can you expect?

Potential Benefits:

- ✓ This will help research!
- ✓ This **will help** the Wichita State University Speech-Language and Hearing Clinic and others with aphasia!

X This is **not** speech or language therapy.



Research

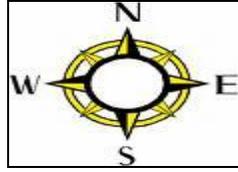
Will this help research? YES 

Will this help you to talk better? NO 

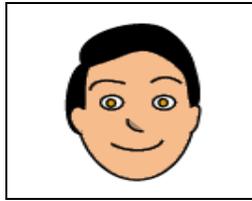
Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winckel, & E.

Shumway. 1996 Aphasia Centre - North York, Toronto: Canada.

Where?



Where?



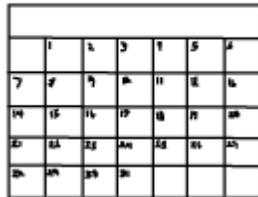
You

at



Wichita State University

When?



to be arranged

Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winckel, & E.

Shumway. 1996 Aphasia Centre - North York, Toronto: Canada.

How often?

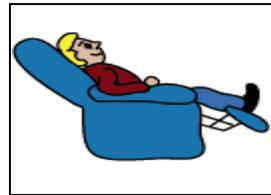
3 Sessions



Session 1 Session 2 Session 3

BUT

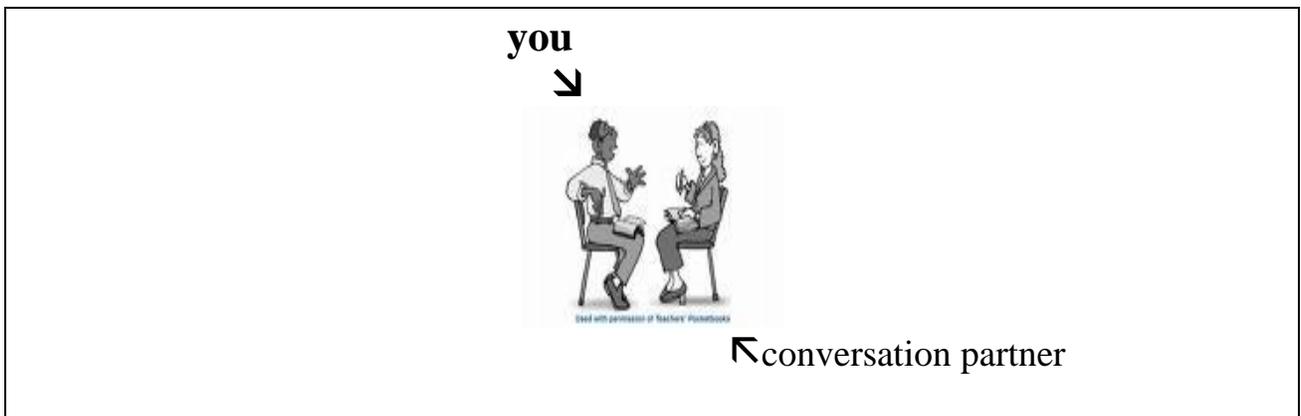
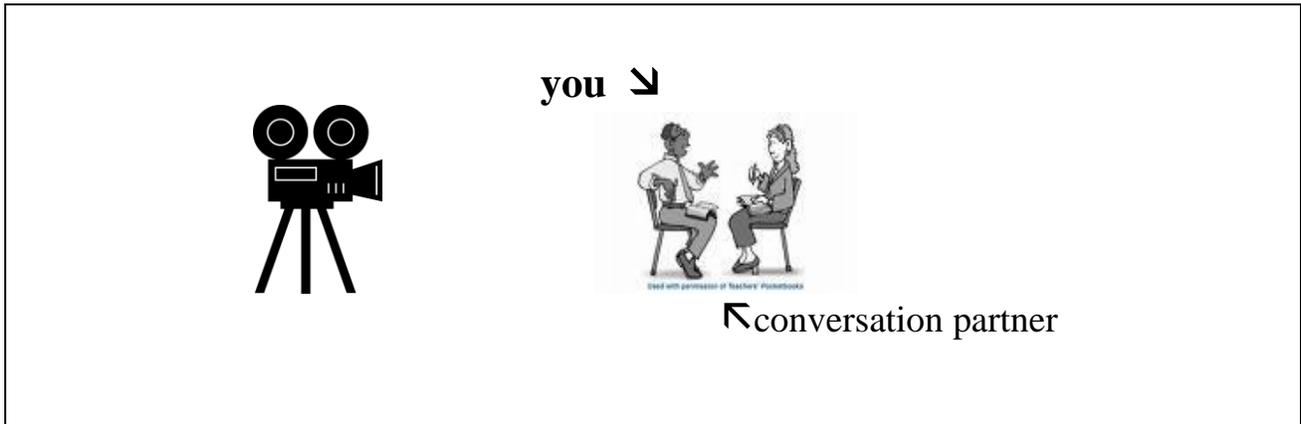
If you get **tired** I will **stop** and **start** again on another day.



Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winckel, & E. Shumway. 1996 Aphasia Centre - North York, Toronto: Canada.

Videotape

I want to make a **videotape** of **you** and your **conversation partner**.

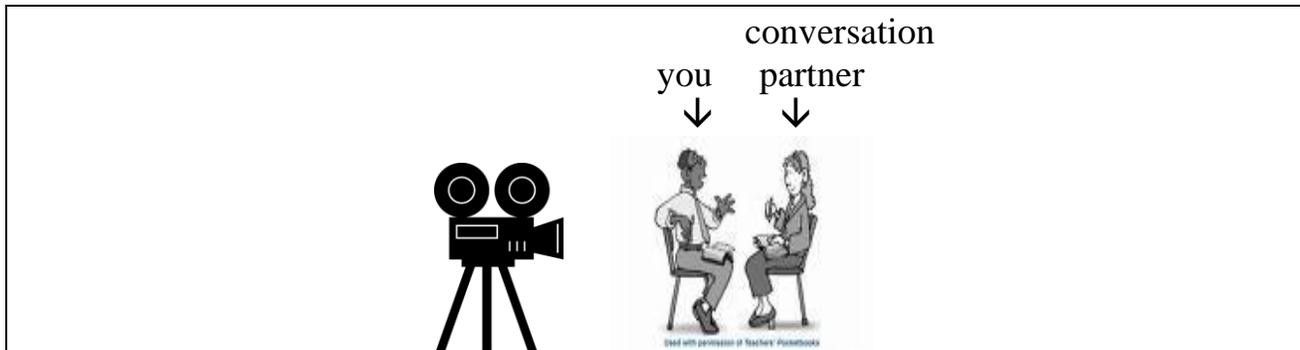


You and your **conversation partner** will **talk**
to each other and I will **videotape** it.

Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winckel, & E.

Shumway. 1996 Aphasia Centre - North York, Toronto: Canada.

I will make **3** videotapes of **you** and your **conversation partner**.



Session 1



Session 2



Session 3

Right to Withdraw:



✓ You can **stop** at any time.

✓ It is **your choice**.

✓ It is **OK** to quit.

Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winkel, & E.

Shumway. 1996 Aphasia Centre - North York, Toronto: Canada.

Potential Risks:

Safe



There is **NO Danger** in participating in the study



Everything is confidential



Will this study **harm** you? **NO**

Adapted from the *Pictographic communication resources* (Manual) by A. Kagan, J. Winckel, & E.

Shumway. 1996 Aphasia Centre - North York, Toronto: Canada.

Project Consent:

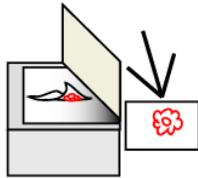
The information presented on the previous pages
has been explained to me.

YES 

I agree to participate in this research project.



YES  NO 



I have been given a **copy** of this form.

YES  NO 

Signature of Participant

Date

Signature of Witness

Date

Appendix C

Consent Form for Conversation Partner (On letterhead)

You are invited to participate in a study of Supported Conversation for Adults with Aphasia. I hope to learn about the effect of supporting the conversation of adults with acute aphasia by a conversation partner. You were selected as a possible participant in this study because you have a conversation partner with aphasia.

If you decide to participate, you will be asked to participate in one training session on the techniques used the Supported Conversation for Adults with Aphasia (SCA) approach. During this training session you will be introduced to and practice specific ways to support the conversation competence of your partner with aphasia. In addition to this training, you and your partner with aphasia will be videotaped engaging in 15- minutes of conversation 3times over a course of 60 days. Each of the three videotaped sessions will consist of three 5-minute conversations between you and your partner, with breaks provided between each 5-minute interval. The first videotaping will occur prior to your training on the techniques used with SCA method. This will provide me with a baseline of conversational interaction between you and your partner with aphasia when not using SCA techniques and it will also help me to compare and assess any changes that might occur in the conversational interactions after you have had training in SCA techniques. The second videotaped session with you and your partner will occur within one week of your training session and a final videotaping will be obtained approximately 30 days from the date of the second videotape. All videotaped sessions will be made at the Wichita State University Speech-Language-Hearing Clinic.

You will not experience any risks, discomforts, or inconvenience while participating in this study. This study is being conducted to help speech-language professionals better understand the effect of providing conversational support for persons with aphasia by their conversation partners. This may help in the treatment of persons with aphasia.

Any information obtained in this study in which you can be identified will remain confidential and will be disclosed only with your permission.

Participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your or your partner with aphasia future relations with the Wichita State University Speech-Language-Hearing Clinic. If you decide to participate, you may withdraw from the study at any time.

If you have any questions about this research, please ask me. If you have additional questions during the study, I will be glad to answer them. You may contact me, Debbie Hollinger, or my supervisor, Julie Scherz, PhD, with any questions you may have:

Debbie Hollinger
1601 McRae Dr
Goddard, KS 67052
(316) 550-6130

Julie Scherz, PhD, CCC-SLP
Dept of Comm. Sciences and Disorders
Wichita State University
Wichita, KS 67208
(316) 978-5344

You will be given a copy of this consent form to keep.

You are making a decision whether or not to participate. Your signature indicates that you have read the information provided above and have voluntarily agreed to participate.

Signature of Subject

Date

Signature of Investigator

Date

Appendix D

Measure of Skill in Supported Conversation (MSC)

(M)SCA BEHAVIOURAL GUIDELINES: SUMMARY

A. ACKNOWLEDGING COMPETENCE	
Natural Adult Talk Appropriate to Context*	<ul style="list-style-type: none"> • Feel and flow of natural adult conversation appropriate to context e.g. social chat vs interview; respectful approach to verification (verifying that the <u>conversation partner</u> has understood rather than verifying that <u>AP</u> knows what they want to say; not over verifying) • Not patronizing (loudness, tone of voice, rate, enunciation) • Appropriate emotional tone/use of humour
Sensitivity to Partner*	<ul style="list-style-type: none"> • Incorrect/unclear responses handled respectfully • Sensitive to AP's attempts to engage in conversation • Encourage when appropriate • Acknowledge competence when AP is frustrated/upset e.g. "I know you know what you want to say" • "Listening attitude" • Taking on communicative burden as appropriate/making AP feel comfortable
B. REVEALING COMPETENCE (How much support is provided relative to what's needed?)	
1. Ensures that AP understands** (e.g. topic, questions)	<ul style="list-style-type: none"> • Verbal (e.g. short, simple sentences; redundancy; is there some verbal adaptation?) • Non-verbal <ul style="list-style-type: none"> Gesture Meaningful; slightly exaggerated; Used to emphasize or clarify Writing Clear and visible; Appropriate key words Resources/ Used only when necessary (would something simpler suffice?) Drawing Simple and clearly presented • Response to Communicative Cues (e.g. reacting to facial expressions that indicate lack of comprehension)
2. Ensures that AP has a means of responding**	<ul style="list-style-type: none"> • Verbal (e.g. use of Fixed Choice / Yes/No Questions) • Non-verbal <ul style="list-style-type: none"> Gesture Models response mode (e.g. pointing, thumbs up/down) Writing Provides choices for pointing; Clear and visible; Appropriate key words Encourages writing (e.g. makes sure that AP has paper and pen) Resources/ Provides something so that AP can point to it, encourages use of resources Drawing Encourages drawing • Response to Communicative Cues (e.g. giving enough time to respond)
3. Verification** (Accuracy of AP's response not automatically assumed)	<ul style="list-style-type: none"> • Verbal (e.g. "So let's see if I've got this right . . .") - reflecting and expanding • Non-verbal <ul style="list-style-type: none"> Gesture Model desired response for clarification Writing Reflecting, summarization Resources/ As appropriate Drawing • Response to Communicative Cues (e.g. appropriate handling of inconsistent yes/no response)
<i>NOTE: Verification often involves checking in <u>another</u> modality</i>	

* Although these two areas are not scored separately because of considerable overlap, they are useful in guiding observation

** B1, B2 and B3 are scored separately and then averaged to give the score for 'revealing competence'.

Key	AP: Aphasic Partner
	CP: Conversation Partner

Appendix E

Measure of Participation in Conversation (MPC)

(M)APC BEHAVIOURAL GUIDELINES: SUMMARY

A. INTERACTION	
Verbal/Vocal Non-Verbal	<ul style="list-style-type: none"> • Does AP share responsibility for maintaining the feel and flow of conversation (including appropriate affect)? • Does AP initiate/maintain interaction with CP or make use of supports offered by CP to initiate/maintain interaction? • Does AP indicate communicative intent? • Is AP pragmatically appropriate? • Does AP ever acknowledge the frustration of the CP or acknowledge their competence /skill? • Behaviours might include: <div style="padding-left: 20px;"> appropriate eye contact, use of gesture, body posture and facial expression, use of writing or drawing in any form, use of resource material, use of verbalization/vocalization in any form. </div>
B. TRANSACTION	
Verbal/Vocal Non-Verbal	<ul style="list-style-type: none"> • Does AP maintain exchange of information, opinions and feelings with CP? • Does AP ever initiate transaction? <ul style="list-style-type: none"> - introducing or referring back to a previous topic? - spontaneously using a compensatory technique? • Does content of transaction appear to be accurate? (depending on context and purpose of rating, rater would have more/less access to means of verification of information) • Does AP use support offered by CP for the purpose of transaction? This might include: <div style="padding-left: 20px;"> using a gesture modelled by CP; pointing to key-words or pictured resources, collaborating with CP around a drawing. </div>

Key	AP: Aphasic Partner
	CP: Conversation Partner

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7. Having a one-to-one conversation with you.

Not able
at all _____ As able as
before stroke

8. Saying the name of someone whose face is in front of him/her.

Not able
at all _____ As able as
before stroke

9. Communicating physical problems such as aches and pains.

Not able
at all _____ As able as
before stroke

10. Having a spontaneous conversation (i.e., starting the conversation and/or changing the subject).

Not able
at all _____ As able as
before stroke

11. Responding to or communicating anything (including yes and no) without words.

Not able
at all _____ As able as
before stroke

12. Starting a conversation with people who are not close family.

Not able
at all _____ As able as
before stroke

13. Understanding writing.

Not able
at all _____ As able as
before stroke

14. Being part of a conversation when it is fast and there are a number of people involved.

Not able
at all _____ As able as
before stroke

15. Participating in a conversation with strangers.

Not able
at all _____ As able as
before stroke

16. Describing or discussing something in depth.

Not able
at all _____ As able as
before stroke

Appendix G

Conversation Satisfaction Questionnaire (CSQ)

1. We each got to say what we wanted to say.

				
1	2	3	4	5
Very Dissatisfied	Dissatisfied	So-So	Satisfied	Very Satisfied

2. I was able to express more than just my basic needs.

				
1	2	3	4	5
Very Dissatisfied	Dissatisfied	So-So	Satisfied	Very Satisfied

3. My partner expressed interest in what I had to say.

				
1	2	3	4	5
Very Dissatisfied	Dissatisfied	So-So	Satisfied	Very Satisfied

4. My partner let me know that I was communicating effectively.



1

Very

Dissatisfied



2

Dissatisfied



3

So-So



4

Satisfied



5

Very

Satisfied

5. My partner showed me that he/she understood what I said.



1

Very

Dissatisfied



2

Dissatisfied



3

So-So



4

Satisfied



5

Very

Satisfied

6. The conversation flowed smoothly.



1

Very

Dissatisfied



2

Dissatisfied



3

So-So



4

Satisfied



5

Very

Satisfied

Appendix H

AAC – Aphasia Topic and Vocabulary Inventory

Instructions to clinician: Make an inventory of favorite communication topics by inviting the person with aphasia, family, and/or friends to complete the following form. To adapt the form for the person with aphasia, present topics on separate cards, and embellish with picture, if necessary. Have the person with aphasia indicate preferred topics by 1) pointing; 2) sorting cards into a “favorite” pile; and 3) rating topics presented one at a time by pointing to a number on a rating scale. Provide a model as needed.

Instructions to individual: Circle favorite topics you talked about with _____. Then, list specific vocabulary and/or messages within the topic in the right-hand column.

Family	
Draw a family tree with names and ages on a separate page.	
List special family events:	
Special messages to specific family members:	
Other information:	

Sports	
List favorite teams:	
List favorite players:	
List memorable games:	

Continued

Hobbies/Interests	
List a favorite hobby #1 and achievements:	
List a favorite hobby #2 and achievements:	
List a favorite hobby #3 and achievements:	

Current Events	
List/describe local events of interest:	
List/describe national events of interest:	
List/describe international events of interest:	

Politics	
List party:	
Describe voting habits:	
List favorite political figures or presidents:	

Continued

Jobs/Career	
List job #1 and notable achievements or memories:	
List job #2 and notable achievements or memories:	
List job #3 and notable achievements or memories:	

Pets	
List/describe pet #1:	
List/describe pet #2:	

Growing up	
List stories/information #1:	
List stories/information #2:	

Continued

Needs and Wants Around the Home/Residence	
Physical or comfort needs:	
Leisure needs:	
Items:	

Needs in the Community	
Items to purchase:	
Places to go:	
Transportation issues:	
Places to visit:	

Adapted from *the Augmentative Communication Strategies for Adults with Acute or Chronic Conditions*

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