



Augmentative Communication News

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UPFRONT

Communicative interaction is a dynamic process between at least two people. It is governed by rules of discourse, social roles, rules for social interaction, mutual understanding of a language, rules for language use, and individual styles and strategies for achieving desired ends.¹ It is complicated!

It gets even more complicated between persons using augmentative and alternative communication (AAC) techniques and their speaking partners. These social interaction experiences are not directly parallel to human speech interactions. To some extent, differences are caused by AAC tools and/or their characteristics (e. g., slow

rates), but there are other issues. As a result, concepts such as communication empathy,² and alternate models of communication³ are being discussed to account for the myriad of variables involved in this process. This issue highlights a critical component of AAC interaction, i.e., "training partners," "facilitator training," "parent training," "peer training" and other variations around the theme of preparing people to interact with individuals who use AAC aids and techniques.

Thanks to the master clinicians and researchers interviewed who are helping to focus more attention on this area. In **For Consumers**, several issues related to facilitator training are considered. The **Clinical News** section describes programs being used (*cont. page 2*)

For Consumers



Intervention with the partner's
of AAC consumers:
Part 1 - Interaction

More than a decade ago, clinicians and researchers began describing the interaction patterns of persons using AAC (symbols and signs, communication boards, and electronic devices), and their speaking partners, as follows:^{4,5,6,}

- The social interactions of persons using AAC techniques are highly multi-modal; and exchanges between partners often involve nonverbal behaviors, partner guessing, and non-electronic language boards, as well as sophisticated electronic devices.
- Studies reveal speaking partners ask predominantly yes/no questions, provide few opportunities for AAC users to respond, take a majority of conversational turns, interrupt, and focus on a user's method of expression rather than their message.
- AAC users are said to rarely initiate, use a limited range of speech acts, have difficulty repairing communication breakdowns, use restricted language forms (e.g., primarily one-word responses), infrequently interact with peers, and rely primarily on nonverbal behaviors.
- AAC users report some speaking partners have low expectations, over enunciate, shout at them as though they are deaf, and talk to others as though they are not present.

These observations have resulted in a growing awareness in the AAC community that: 1) Communicative competence via AAC techniques is quite different from communicative competence given natural speech; and 2) Interaction success is dependent on partners, as well as users. There is also recognition that:

1. Training partners to interact with AAC users increases a user's opportunities for interaction and active participation in social, educational, recreational, and vocational activities.⁷
2. The ultimate responsibility for training partners should belong to the AAC user. Professionals should not take this away! Although the degree of responsibility assumed varies, and will shift over time, (*cont. page 2*)



UPFRONT (continued from page 1) to train a variety of partners. In **Governmental**, I consider a role AAC organizations might take on to "train" the general public. **Equipment** describes a few products you may not know about. Finally, **University/Research** highlights current research underway at the Regency Park Centre in Australia.

ACN's May issue also will focus on Facilitator Training. In Part 2, we'll consider issues and practices related to training adults to implement communication technologies. Let me know if you have information to share! ACN's Hotline number is (408) 649-3050.

The war is over. We've finally had some rain in drought stricken California. The Salmon sport fishing season opened today. . . Where's my rod and reel? ACN staff wishes you a glorious Spring (or Fall).

Sarah Blackstone, Author

For Consumers (cont. from page 1)

even those who are young or have significant cognitive limitations learn to modify their partner's behavior. Examples are: vocalizing to attract attention, pointing to a picture and looking at a partner to request something, using an electronic device to tell a partner to "please hang on a minute...I have something to say," or looking at a speaking friend to indicate you want him to interpret for you.

- 3. It is impossible to modify the communication behaviors of everyone.
- 4. Training someone to facilitate interaction is not a "one shot deal." It requires more than an Inservice, a check list, or telling someone to "pause" and "look expectant."

Many issues remain unresolved. Who should be trained? What roles should trained partners play in the interaction process? How should we design our training so it is effective and efficient?

Who should be trained?

I'd like to propose a framework within which to consider "partner training," adapted directly from Forest's Circle of Friends. The

focus is on the person using AAC techniques and his/her relationships. It graphically depicts the notions of balance and reciprocity, which are inherent to successful interaction. Figure 1 illustrates a Circle of Partners for an AAC user, as described below:

- At the CENTER is the individual.
- The INNER CIRCLE represents core relationships. These exist "no matter what" (parents, spouse, siblings, children.) AAC users report their most significant partners are persons in their immediate family.
- The SECOND CIRCLE contains friends, i.e., there is mutual trust and a desire to share time, thoughts, feelings and ideas. These relationships are heavily dependent on communication.
- The THIRD CIRCLE is comprised of favorite acquaintances, e.g., people at school, church, in the neighborhood. This circle is often dependent on mobility and access to a range of activities.
- The OUTER CIRCLE represents people who are paid to have a relationship with us (boss, doctor, teacher, dentist, and so on.)

Constructing a Circle of Partners for an AAC user provides valuable information that can be useful in selecting partners for training. Considerations can include:

- 1. Does the AAC user have a balance of relationships, or are most people in their

inner and outer circles? Imagine life without friends! Select partners for training that balance an AAC user's Circles.

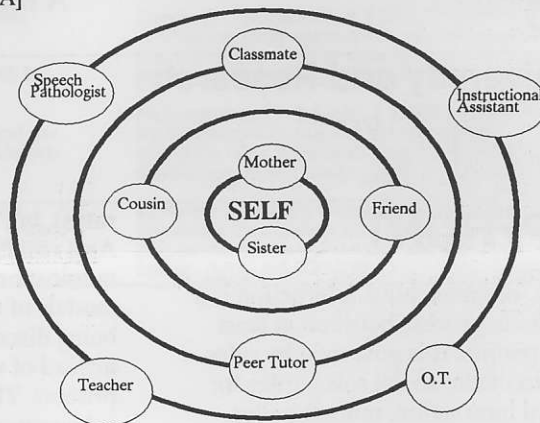
2. Ask the user to select who gets trained first, second, etc. and with what communication system components.
3. How much responsibility can the user assume in training their own partners, in repairing conversational breakdowns? Under what circumstances? Don't underestimate!
4. What type of assistance does the user require? Under what circumstances?
5. Who is most familiar with the user? Most available? Most willing to facilitate interaction?
6. Which partners already have good interaction skills? Which do not?
7. Who interacts most (and least) effectively and efficiently with the user? How much time does each partner spend with the user.
8. Who has the knowledge, skills, and opportunity to train others?
9. Who is in the best position to assist the user in developing new relationships?
10. Would increasing public awareness, expand the user's opportunities? How?

Defining the role of partners

The terms *partner, advocate, coach, interpreter, and facilitator* are

FIGURE 1. CIRCLE OF PARTNERS

[Adapted from *May's Map. With a little help from my friends*. A videotape by M. Forest & J. Snow. Expectations Unlimited. P.O. Box 655, Niwot, CO 80544 USA]



being used to describe people who play a role in facilitating interaction. Subtle and important differences in roles exist, which we need to sort out.

PARTNER - "one who joins in the activity of another." Partners are directly involved in the interaction. A communication partner may be a stranger, a peer, a husband, mother, attendant, shopkeeper, professional, etc. Partners may (or may not) be trained. However, after training, partners typically take on a more specific role, as described on page 3.

FACILITATOR - "one who makes it easier." This term is used in Adult Learning. Cumley⁷ describes 3 types of Facilitators: Communication, Technology, Educational. A communication facilitator may carry out a myriad of activities related to interaction, e.g., positioning, reminding peers to do or not do something, instructing interactants to provide more pause time. They provide assistance to both users and partners.

COACH - "one who instructs or trains students." A coach instructs from the sidelines, observing and evaluating performance over time, and then re-instructs. In sports, the coach rarely comes on the playing field, unless someone is injured or a "time-out" is called. Coaches allow people to fail, recover, as well as succeed. "What could you have done better?"

ADVOCATE - "one who pleads another's cause or supports it." Advocates pave the way and make things happen. They are persistent, know the "system" and how to manipulate it. They may open up opportunities for interaction without being directly involved.

INTERPRETER - "one who explains or translates." Interactants attend to the interpreter rather than each other. Interpreters can profoundly affect an interaction. However, a "good interpreter" translates without changing the message for the listener.

Clearly, all roles have value. They do, however, require different types of skills and levels of commitment. For example, a dynamic classroom situation may require a trained adult to facilitate, coach, advocate, and interpret for an AAC user. At lunch, however, occasional coaching may be all that is required. It is advisable for trained partners to know which role they are playing, when, and why!

Considerations For Teaching Adults To Facilitate Interaction

Adult partners have been the major focus of AAC interaction skill training. However, Fagan¹⁰ points out "a prerequisite to helping adult partners learn is understanding how they learn." To date, limited attention in AAC has been paid to how adults learn. In fact, despite evidence to the contrary, we continue to:

- 1. Give "off the cuff" suggestions and assume people will follow through
- 2. Conduct inservices and workshops and assume people will do what we say, or
- 3. "Tell" people what to do during a meeting or in a written report, i.e., remember to pause, avoid "yes/no" questions, etc., and assume people know what we mean.

The adult learning literature tells us to do it differently:

1. Understanding adults and how they learn is dependent on understanding individual differences. Our goal in interaction training is not only to impart information, but to change behaviors and attitudes. Thus, in designing and developing training programs, we simply must draw on counselling as well as instructional techniques.

2. Adult partners bring to the learning situation a combined set of characteristics making them unique. This diversity requires variety in teaching methodologies.

3. Adults respond to particular events (e.g., a training program) on the basis of meanings they construct, both for the event and for themselves in relation to the event.

10 Ways to Approach Adult Learners

1. Use learner oriented activities. Ask "what do you want to change?" Start where the learner is.
2. Personalize instruction
3. Relate past experience to new learning
4. Let adults learn from each other
5. Build a climate conducive to learning
6. Permit active participation in the learning process
7. Learning is their responsibility. Not YOURS! Allow flexibility for personal development.
8. Don't start with "here's what you're doing wrong."
9. Start with goals that will result in an impact they can see (e.g., expectant pause).
10. Be realistic

4. In planning a training program for adult learners, consider their:

a) **MENTAL CHARACTERISTICS:** Most adults are eager to learn. However, what they learn and how well they learn are tied to personality variables:

Readiness to learn. Openness to new experiences and flexibility correlate positively with intellectual functioning.
Learning style. Personality affects one's preferences and approaches to learning. Several instruments are available to identify adult "learning styles."¹¹

Problem orientation. Often, education of children and adolescents is subject-oriented. Teachers lecture and students learn. Adult learners prefer problem oriented approaches and are more satisfied with learning if it applies to their everyday life, is practical, and current.

Time perspective. An adult's time perspective is different from a child's. Also, adults have more time demands. Research suggests adults prefer specific, narrow topics of relevance to more broad, generalized or abstract subjects.

b) **PHYSICAL CHARACTERISTICS:** Adults are more attuned to comfortable surroundings, more sensitive to discomfort. The room, chairs, timing, acoustics, and visual information should insure comfort.

c) **SOCIAL AND CULTURAL CHARACTERISTICS:** Adults have a variety of social and cultural experiences (e.g., school, group interaction, the topic at hand). It is important to make an effort to adapt to these characteristics. For example, Warrick¹² suggests selecting illustrations depicting the same cultural and social values of persons being trained, and steering away from jargon. Say "people talking together" not "communicative interaction."

d) **EMOTIONAL CHARACTERISTICS:** To learn, adults must be emotionally comfortable with a learning situation. Don't "deliver" information. Say "here's what I think....what do you think." A key is an adult's self-image. Adults over 30 begin to feel less adequate about their learning abilities.

5. Adults have lots of responsibilities to juggle. They may (or may not) perceive what you want to teach of value. For some people communication simply is not a priority. *GASP! Can you imagine!* Remember, however. . . **Time is wasted when we fail to work in the face of reality.** If families do not have the time, emotional resources, capability, or desire to change their interaction patterns, so be it! Approaching intervention from a family-centered framework allows us to support the family as well as meet the individual's need to interact, communicate, and actively participate in outside activities.¹³

It is always more frustrating (*for me*) when professionals don't perceive their role in the interaction process as important or when their behaviors reflect what appears to be low expectations of people who use AAC techniques. Leaving the door open allows adult learners to shift their priorities over time.

Summary

How we approach the learning task is important. We'll do a better job if we keep the following in mind:

- 1. Adults bring an "ability to use conventional modes, forms and rules for interaction and their own interaction style" to a communicative exchange.
- 2. Most natural speakers (no matter what their profession) are unprepared to interact with persons who use AAC techniques.
- 3. If adults don't know what to do, they feel uncomfortable, incompetent, even "stupid."
- 4. Trainers must be able to help create a positive emotional climate.
- 5. It requires understanding and guided practice to alter well-established patterns of interaction.
- 6. If you sense resistance, get it on the table. Spend time upfront and save time later!



Clinical News

Training strategies for speaking partners

The quality of the interaction that takes place with any given AAC user is generally dependent, at least to some extent, on the kind of beliefs and attitudes the speaking partner has about people who are disabled, and how well the natural speaker:

1. Can adapt to, and communicate with "different" speakers;
2. Is aware of, understands and reacts to the AAC user's idiosyncratic signals and body movements;
3. Expands on topics and co-constructs meaningful exchanges; and
4. Reacts to a device or technique.

This section provides descriptions of intervention programs designed to change the behaviors of natural speaking partners, and in so doing, increase the AAC user's communication opportunities and competence.

PARENT FOCUS

The Partners in Augmentative Communication Training Program PACT
Culp, D. & Carlisle, M. (1988). Partners in augmentative communication training: A resource guide for interaction facilitation training for children. Tucson, AZ: Communication Skill Builders.

Designed to improve interaction between children with motor speech impairment who used AAC techniques and their parents, assessment procedures and training methods are described in detail. Efficacy was demonstrated during a 5 day summer camp program for parents (10 mothers, 1 father) and 11 children. A variety of low/high tech aids, transmission techniques, and representational systems were used. Results of intense parent training (8 a.m. to 5 p.m.) were:

- 1. Parents improved interactive skills as assessed by the PACT Interaction Profile.
- 2. On the pre-test, parent's performance was rated as high in their use of a variety of communicative functions, positioning self for interaction, and reinforcing, confirming, and elaborating their children's messages. Low ratings were received on: modeling use of AAC techniques, providing pause time, questioning, and establishing agreement.
- 3. On the post test, parents demonstrated statistically significant improvement in modelling, providing pause time and modifying questions. High performance in other areas was maintained. It was difficult for partners to alter the pace of interaction.
- 4. Parents reacted positively to the program although some objected to the intense schedule. They reported learning to: make the augmentative technique available; provide pause time; modify questions; and follow the child's lead.

FAMILY FOCUS

Consumer Newsletter. Because many users, families, and professionals are inaccessible for ongoing training, the augmentative communication team (ACT) at the Callier Center (Texas) is publishing a quarterly newsletter for consumers, Inter-ACT. They mailed a survey to 50 patients/families asking what to include. Consumers wanted to know how to: cope with a severe communication disorder, use technology, be a good communication partner, make things work in classrooms. It is excellent!

Contact Delva Culp, Editor, Callier Center, Univ. of Texas, Dallas, TX 75235

Conversational Coaching Strategy

For adults with aphasia, Holland¹⁴ recommends

- a. Prepare a script that is too hard for individual to communicate without assistance.
- b. Practice the script with the individual
- c. Call family member in
- d. Coach both the patient and spouse (e.g., "use gestures," "use this map," "provide some written choices,").
- e. Do the same activity with a stranger

PEER FOCUS

The Effects of Peer Facilitators on the Communicative Interactional Skills of Children Using Communication Aids.

Cassatt-James, E. L. (1989). The effects of peer facilitators on the communicative interactional skills of children using communication aids. Dissertation submitted to University of Maryland.

This study investigated the validity of a treatment procedure designed to improve social interaction and conversational skills between able-bodied students and students who use AAC. Subjects were 2 boys and 1 girl (ages 5-8 years) with cognitive and language understanding capabilities above the 2 1/2 year level, cerebral palsy, unintelligible speech, and were wheelchair users. All had low and high tech communication systems. Peer facilitators were regular education students (2 boys, 1 girl). Dyads were formed by age, interests, and same sex considerations. Low tech aids were used in the study because students were not operationally competent with a high tech aid. Students directly selected or encoded messages. Representational play activities included: Going to Burger King, Dress up, Reading books, Going to the market, Washing the baby. A

multiple probe baseline design across 3 dyads was employed to assess the effects of a four component instructional package for speaking peers described below:

Didactic Instruction: Examiner explains the function of equipment, demonstrates modes of communication used, reviews type and organization of symbol systems, and how to choose play activities appropriate to child's interest and teaches peer to:

- a) respond to the AAC user's interest in and selection of activities;
- b) pair spoken comments with symbols;
- c) provide time for users to respond;
- d) offer several choices;
- e) provide praise when users took a turn;
- f) encourage turntaking by using open-ended questions "what should we do now?";
- g) use discourse maintenance strategies such as confirmation.

Modeling: Examiner demonstrates use of communication aid when interacting with the AAC user during a play activity (e.g., "Do you want the soap or the washcloth?" while pointing to the symbols soap and washcloth on the communication board.)

Role Play: Examiner assumes role of AAC user so speaking peer can practice the techniques described in the information sessions. Note: The examiner does not respond to at least 33% of peer initiations, and the peer is told to persist. Activity scripts for the peer to follow and feedback regarding his/her performance are provided.

In-vivo Practice: The examiner observes the peer facilitator interact for approximately 5 minutes. Feedback is given.

The instructional package was effective in improving the interactional skills of both partners within and between dyads. Follow-up probes confirmed continued use of these behaviors over time and people. Effects varied across peer facilitators, but general patterns were:

- Changes in communicative behavior of the nonhandicapped student resulted in similar changes in behavior of the matched peer.
- Modeling use of the communication aid by the peer facilitator resulted in increased use of the aid by the nonspeaking student.
- For two dyads, use of a greater number of forward-linked turns by the peer resulted in a greater number of backward-linked turns by the augmented communicator.
- Changes in the interactional behavior of peers were maintained over time and generalized to interactions with unfamiliar augmented communicators.
- All peer facilitators were able to teach the interactional strategies to fellow classmates.
- The package was most effective in increasing target behaviors in those dyads who exhibited low rates of interactional behaviors during baseline.

Teaching conversation skills to individuals with severe disabilities with a communication book adaptation.

Hunt, P., Alwell, M., & Goetz, L. (1990). Teaching conversation skills to individuals with severe disabilities with a communication book adaptation: Instructional handbook. Available \$5.00 US Make checks payable to: San Francisco State University Foundation. Send to CRI Project, 14 Tapia Drive, San Francisco, CA 94132. No purchase orders

In a series of studies, Hunt, Alwell, and Goetz demonstrated 1) the utility of a conversation book as an interactive tool, and 2) the efficacy of their training procedures. Subjects were elementary to high-school age level students (mostly ambulatory) with severe disabilities who have "some speech, but do not articulate clearly." Typical students were social, but often behaved

What is a Conversation Book? It's a great idea!

A small album/notebook that provides ideas for things to talk about. Pages are designed to reflect the individual's interests, chronological age and account for the individual's capabilities (e.g. visual, scanning, motor, and literacy skills.) Magazine pictures, illustrations, colored and/or black-and-white photographs, and line drawings (graphic symbols) are used and updated frequently. Pictures of speaking peers and their favorite activities are included to maintain their interest, as well. Students can decorate their own covers, type titles and tape them on. The goal of the program is for students to initiate and maintain conversational exchanges throughout the day whenever they desire social interaction, so it is important for them to have ready access to the Conversation Book. The student should have a carrying case he or she is comfortable carrying or wearing (purse, waistpacks, small camera bag, travel pouch, etc.).

inappropriately (e.g., silly). Conversation partners included regular education students, coworkers at job sites, family members, family friends, care providers (respite workers) or familiar persons in the general community. The program is briefly summarized below.

Training Sessions: Implemented no more than twice per day, each session is brief (Preschoolers - 1 to 3 conversational turns; Grades 1 to 3 - three minutes; Grades 4 to 12 - five minutes)

Procedures: A specific turntaking structure is taught to both the student and partner using a prompt-fade instructional strategy. Physical, gestural and verbal prompting and fading paradigms are individualized. Instructors are positioned so student and partner focus on one another with assistance and reinforcement provided discretely, i.e., they play the role of "coach." The student and partner are trained to use the book as a medium for social interaction, as follows: The student removes the conversation book from his/her carrying case and makes a comment or asks a question (e.g., points to a picture in the book). Partners are taught to: Make comments by referring to pictures in the conversation book; Respond to the student's comments or questions and make additional comments; Always finish their turn by asking the student a question that can be answered by referring to pictures in the book; Provide student with opportunities to make additional comments or introduce a new topic.

When individual criteria are reached, i.e., dyad independently takes turns over a period of time, maintenance sessions are arranged 2x per week, and new partners, settings, times, and materials are targeted. Alwell recommends teachers develop friendships with regular education students, take pictures of them and encourage them to participate in developing and maintaining books.

PARENT/PROFESSIONAL FOCUS

Facilitator Training Workshops. Augmentative Communication Services (ACS) in Ontario, Canada is committed to supporting, strengthening, and empowering each client's "community based facilitator team" (therapists, teachers, family members and friends). A primary facilitator is identified to work with the client over a number of years and train new facilitator team members. Intensive instruction of primary facilitators and local teams is carried out gradually over time in workshops, by phone, and through community visits. The goal is to reduce the dependency of users on major

health care agencies and develop advocacy skills at the local level. Currently, ACS offers three Series of Workshops: Developing communication skills, Applications of technology, and Computer training. Warrick¹² describes the workshops as practical. They work in groups, de-emphasize the role of specialists, use lots of handouts (copy overheads), role play, discuss videotapes, have home assignments. The workshops for Developing Communication Skills are:

Establishing Communication. Focuses on requesting attention, communicating choices, acceptance/rejection, and turntaking within conversational exchanges.

Making Communication Displays. Focuses on multimodal approaches, graphics, vocabulary, layout, multipurpose/theme displays.

Using Communication Displays. Videotapes, demonstration and discussion help participants explore ways to encourage clients to use displays in all contexts.

Dealing With Unclear Speech. Focuses on identifying communication breakdowns, repair strategies, and vocabulary and display issues.

PROFESSIONAL FOCUS: CLASSROOM

Training classroom teams to employ environmental communication teaching techniques with students with severe disabilities. Karlan's project¹⁵ systematically addresses the need for adults in classrooms to change their behaviors and create opportunities for students with severe disabilities to communicate. The program provides theory and demonstration (in workshops), followed by guided practice (on site/classroom) over many months.

Develop Activity Based Objectives. Lots of time is spent mapping out class activities and identifying communication objectives within each activity (i.e., transferring IEP goals into "life"). Also, positioning of devices and use during functional activities is considered.

Teach A Cueing And Prompting Hierarchy.

Pause. (show video examples of people not pausing and video examples of workshop participants pausing);

Use open ended questions (who, when, why, where, etc.);

Request clarification ("I don't understand, tell me another way?");

Give choices ("Do you want ___ or ___");

Model ("ask me like this.").

Guided practice and feedback. Observers come in to classroom 1x per week and fill out a checklist. Teachers/instructional assistants analyze their own behaviors.

PROFESSIONAL FOCUS: INSTITUTIONAL SETTING

Facilitating communication in naturalistic settings.

Sack, S., Spradlin, J., Snyder-McLean, L., McLean, J. (submitted for publication). Facilitating communication in naturalistic settings.

In her dissertation, Sack compared two methods of training care providers at Parsons State Hospital to increase the communication opportunities they provided to 5 young men (ages 15-18) with severe mental retardation. The subject's communicative repertoires were: "contact gestures" (i.e., contact with object/person); "distal" gestures (e.g., pointing or reaching toward, but not touching object/person); and limited manual signs. Care providers were well trained and were high school graduates. Subjects and staff were divided into 2 groups. Each group participated in 2 activities: snack and art. A multiple baseline design was used. Data were collected on the opportunities staff provided [i.e., antecedent (*delay, vocal/gestural prompts, mand*) and consequent behaviors; on student response; and mode of communication (*gestural/reach, sign, speech*)]. Intervention (*cont. on page 6*)



Clinical News (cont. from page 5)

began after baseline for the snack context. **Very** few opportunities were provided during baseline in either group.

Posted sequence. Trainer gave a one hour inservice for care providers. Opportunities for communication were identified in the snack activity. Staff generated a list of 6 instances for communication. A list was posted (eg., request plate/napkin; cookies/cracker; more cookies/cracker; cup; drink; more drink.) Although there was initially an increase in opportunities provided after the inservice, it washed out over 12 sessions.

Structured communication events. The trainer held an inservice, teaching care providers to recognize and respond to gestures, and implement a specific prompting sequence (pause, expect it and wait for it, prompt it). Then, the trainer coached each group for 5 days (i.e., team taught) and provided a refresher course.

Staff dramatically increased the number of opportunities they provided. And, students filled their turns 92-100% of the time. Once the routine was established students produced 44% of intents without a prompt. However, generalization to the art activity did not occur until after the Structured communication event inservice and training was completed.

This study demonstrates the effectiveness of a more structured approach to communication training. Further, it shows the need to teach care providers to identify opportunities and then train them in at least 2 contexts. Staff who developed competency maintained it and were able to teach other staff.

Instructing Facilitators to Support the Communication of Persons Using Augmentative Communication Systems.

Light, J., Dattilo, J., English, J., Gutierrez, L., & Hartz, J. (in preparation).

A single subject multiple baseline design, replicated across 3 dyads examined the efficacy of training 2 young women (with cerebral palsy/traumatic brain injury and cognitive impairments) and 3 personal attendants. The program was carried out over four sessions:

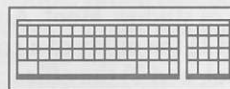
Introductory Session (1): Importance of partner as a facilitator, goals for user, and facilitator strategies: a) pause up to 10 seconds b) provide opportunities, c) respond by fulfilling intent/limiting yes/no questions.

Instructional Sessions (3): Within natural environment instructor demonstrated strategies, provided feedback/encouragement.

Post intervention, turn taking and initiation patterns were more reciprocal. Generalization occurred supporting the use of facilitator instruction to promote greater participation in daily interactions by person using AAC.

Summary

Other programs are referenced in the Additional Readings section on page 8. The common thread among programs is a commitment by AAC professionals and other partners, who agree to take on specific roles to facilitate interaction, to play an active and ongoing role in the lives of persons who use AAC.



Equipment

Are you aware of these products?

The PEACEKEYper. Tiger Communication System, Inc. 155 East Broad Street, Suite #325, Rochester, NY 14604. Pictorial, Expandable, Affordable, Comprehensive, Electronic **KEY**board. This transportable notebook, designed for use by persons with mental challenges, is a 3-ring compact picture vocabulary binder (9" x 8" x 2") and a fold-out adaptation of the Franklin Speaking Ace-200 pronouncer. It has 64 color coded laminated pages and can accommodate 2000 symbols (546 are already printed). For \$85 you can order the binder (which includes supplemental self-adhesive labels for symbols.) The Franklin Speaking Ace-200 provides single-word voice output. Users copy words from their binder to hear them spoken and to communicate.

BAILIWICK. 2400 Arbutus Road, Victoria, British Columbia, Canada V8N 1V7. A voice output device for persons with low vision who are unable to use direct selection techniques. Backlit to enhance vision and user programmable, the device can tally user activation of cells, allowing clinicians to evaluate the usefulness of messages based on frequency of use.

HANDY SPEECH COMMUNICATION AIDE. Consultants for Communication Technology. 508 Bellevue Terrace, Pittsburgh, PA 15202. Less than \$2,000. Designed for persons with ALS, MS, CP and Head Injury that can read single words. It is accessed using a direct selection or scanning. Users can chose speech synthesizer. Battery operated, IBM compatible, laptop computer included.

PC-VOICE. Compeer, Inc. 1409 Graywood Drive, San Jose, CA 95129. System is Porta-Voice software and hardware (\$395) connected to parallel port of any IBM-PC compatible computer. Keyboard, mouse, or trackball access. Has word prediction, stored messages. Can be used to turn existing IBM-compatible computer into AAC device.



**Governmental
Beyond public awareness
The road to involvement!**

Could (should) organizations representing AAC consumers, families, and professionals assume some responsibility for partner training? Of course! For one thing, public awareness campaigns increase the number of potential partners available for interaction by changing attitudes. The general public is becoming more aware that people who don't talk have much to say and the right to say it.

Information about technology and people who communicate using special AAC devices has been carried by news media around the world. The entertainment industry also has shown an increased interest in people with disabilities (*My Left Foot; Awakenings; Rain Man*).

However, most natural speakers are unprepared to interact with persons who use AAC techniques. Even trained professionals don't necessarily know what to do. Magazine layouts, videos, public awareness spots for T.V., pamphlets could be developed. *Something like . . .*

Ten Quick and Easy things YOU can do when you meet a lady who uses AAC:

- Introduce yourself.
- Ask her to show you how her communication system works.
- Pause and wait for her to construct a message. Be patient. It might take awhile.
- Don't feel you have to keep talking all the time. Relax and get into this slower rhythm of exchanging information.
- Give her an opportunity to ask you questions or make comments.
- Don't finish her sentences/words for her unless she gives you permission.
- Interact at eye level if at all possible. Grab a chair if she's in a wheelchair. Pay attention to facial expressions and gestures.
- Be honest. If you don't understand her, admit it. Ask her to try again.
- Talk directly to her, not to her friend.

Why not consider this for our Consumer Affairs agenda?



University & Research

Regency Park Centre for Young Disabled: South Australia

Regency Park Centre for disabled children and young adults is located near Adelaide on 8 hectares of land. The Centre, partially funded by the Crippled Children's Association of South Australia (S.A.), provides a range of clinical services and educational programs, conducts research, and develops and tests products. The Centre's philosophy is children and young adults with disabilities should not be segregated, but included in the mainstream of their communities. Their programs reflect this:

- **The Community Placement Programme.** This program, for people 16 to 35 years of age with physical disabilities, assesses skills, provides training and work experience, and assists people to access and use local resources and to meet other people.
- **Wheelchair Repair Van Project.** Sponsored by Esso Australia, Ltd. This government supported service fixes wheelchairs throughout the region.
- **Technology Access Service.** This rehabilitation engineering program combines the expertise of a Seating and Positioning Clinic, Augmentative Communication Clinic and Assistive Device Clinic to address the multiple needs of clients.
- **Rehabilitation testing laboratory.** A registered laboratory for the mechanical testing of wheelchairs and other equipment.
- Other Regency Park Centre programs include: a school, recreation programs, a range of residential options, and day services for children and families.

Research projects

Several research projects underway in the Rehabilitation Engineering Division at the Centre relate to augmentative communication:

1. Development and evaluation of an expert system to facilitate efficient matching of disabled people to communication devices. R. Garrett, P. Andrews, C. Olsson, & B. Seeger. Staff are developing a computer program that will help in the selection of an appropriate communication device.

Development of a computer-based expert system for the selection of assistive communication devices. Proceedings of RESNA Conference, Washington, D.C., 1990, p. 348 (authors as above)

2. The design and development of intrinsically motivating software for young children with disabilities. D. Wood and P. McGregor. Based on previous studies, this project is field testing custom written computer programs with 20 children ages 3 to 4 years. On the basis of these results, software will be modified.

Wood, D. (1990). The characteristics of intrinsically motivating early childhood and special education software. *Computers in Education*, 719-724

3. Evaluation of the Regency Park Toy Control Program. H. Stewart & B. Seeger. Designed and developed to train skills necessary for children to use single switches for computer/communication device access, this program was shown to improve 10 children's attention to task and switch use (developmental ages 3 to 5 years.) Available for \$140 US including post and packaging.

Toy Control Program Evaluation. (in press). *The American Journal of Occupational Therapy*. (authors as above)

4. Research in design requirements for access by children with physical disabilities. J. Bails and B. Seeger.

Design guidelines for access to buildings have been developed for physically disabled young people. Ergonomic building design for physically disabled young people. (in press). *Assistive Technology*. (authors as above)

Seeger, B. Australian standards for mobility, transport and access for people with disabilities. *Rehabilitation International RECAP*, July, 1990, 9-10

5. Methods for measuring the characteristics of movements of motor-impaired children. A. Downing, B. Martin, & L. Stern. An economical video-based movement monitoring system has been developed as an analytical tool to non-invasively monitor the movement patterns of persons with impaired motor function. Selected combinations of movement attributes should enable

deliberate actions to be more readily and accurately recognized and used for control purposes. A publication (same title and authors) was submitted to *Assistive Technology*.

6. Isometric joystick: A study of control by adolescents with cerebral palsy. G. Noble, H. Stewart, B. Seeger. An isometric joystick was compared with a regular displacement joystick for control using a standard tracking task. Finding suggests no advantage was gained with the isometric joystick for adolescents with cerebral palsy.

7. Quantifying the benefits and costs associated with implementing international wheelchair standards. M. Hartridge & B. Seeger. This study evaluated existing International Standards re: wheelchair performance, confirming the benefits to users, prescribers and manufacturers of adhering to the standards. International wheelchair standards: A study into costs and benefits. *Assistive Technology* (in press) (authors as above)

8. Wheelchair driving performance: The effects of speed and acceleration. H. Stewart & B. Seeger. Micro-processor-based control boxes were shown to improve driving performance of children with cerebral palsy. Procedures for adjusting controllers are being established to obtain optimum driving performance.

9. A trial of chronic electrical stimulation in early Duchenne muscular dystrophy. L. Stern and B. Seeger, S. Gibson and J. Seeger. The hypothesis that chronic electrical stimulation increases strength and endurance in early phases of Duchenne muscular dystrophy was promising, but not statistically significant. 1990 trials with 4 boys are being analyzed.

Other projects being carried out are: 1) Sexuality education with students using augmented communication and 2) The development of a protocol for conducting investigative interviews of abused children with communicative disabilities.

To request materials or other information, contact: Barry Seeger, Ph.D. Manager, Rehabilitation Engineering Division, P.O. Box 209, Kilkenny SA, 5009 Australia. Phone 61 (for AU) 8 (for SA) 243-8260; Fax 61 (for AU) 8 (for SA) 243-8208.

7.



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2 Lindblom, B. (1990). On the communication process: Speaker-listener interaction and the development of speech. Augmentative and Alternative Communication AAC. 6:4, 220-230.

3 Lloyd, L., Quist, R. & Windsor, J. (1990). A proposed augmentative and alternative communication model. AAC. 6:3, 172-183.

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12 Ann Warrick (February, 1991). Personal communication.

Congratulations

All who completed the 1990 ASHA CEU examination PASSED! Many of you did a very, very nice job. Thanks for your feedback about ACN & your suggestions.

To sign up for 1991 CEUs, send \$10 to Sunset Enterprises, 1 Surf Way, #215, Monterey, CA 93940.

13 Blackstone, S. (1990). Early prevention of severe communication disorders. Augmentative Communication News. 3:1, 1-3.

14 Audrey Holland. (December, 1990). Personal communication.

15 George Karlan (February, 1991). Personal communication.

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