

Upfront



ing partners, setting goals and measuring the outcomes of training. The **On the Web** section shares the results of a

It takes two to tango. The same is true of conversation. Communication is a dynamic process between at least two people. Conversations, like a dance, reflect the context, and are governed by rules of social interaction and discourse. They also reflect social roles, the modes of communication being used and, of course, the individual styles, strategies, skills and purposes of those involved.¹

Individuals who use AAC devices and techniques—and their speaking partners—have conversations that are different from those of natural speakers. Intelligibility, rate of message exchange and a myriad of social issues (not to mention the characteristics and skills of the individuals involved) can dramatically change the nature of these conversations.

Most people are not prepared to interact with augmented communicators. Natural speakers bring to a communicative exchange an ability to use conventional modes (speech, gestures) and rules for interacting, but they are not primed for what ensues.

This issue focuses on the communication partners of individuals who use AAC and considers how to approach their needs for training and support. The **Clinical News** section introduces the notion of *Circles of Communication Partners (CCP)*.² Based on Marsha Forest's *Circle of Friends*,³ this paradigm offers clinicians a tool for identify-

ing partners, setting goals and measuring the outcomes of training. The **On the Web** section shares the results of a recent ACN e-mail survey of six augmented communicators. The survey asked questions about their personal experiences with communication partners.

In **For Consumers**, the role of facilitator is considered with regard to three groups of augmented communicators.⁴ The **Equipment** section then reviews materials designed to teach facilitators to interact more effectively with augmented communicators. In **Governmental**, we explore how

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Clinical News



Communication partners

Augmented communicators describe a “good” communication partner as patient, motivated, interested and comfortable with all methods of communication. Sadly, not all communication partners are “good” ones. In a recent survey (described on page 6), augmented communicators report that sometimes their partners underrate their abilities, shout at them as though they are deaf, over enunciate and/or talk to others instead of addressing them directly.

After observing the interactive patterns of augmented communica-

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tors and their speaking partners over many years, researchers have identified other characteristics as well:

Speaking partners (a) dominate interactions, (b) ask predominantly yes/no questions, (c) take a majority of conversational turns, (d) provide few opportunities for augmented communicators to respond, (e) often interrupt, (f) focus on the user's technology or technique rather than the person or message and (g) do not always confirm the content of messages.

Augmented communicators typically play a passive role. They use multi-modal approaches (*i.e.*, gestures, speech, signs, language displays, electronic devices and strategies), rely on nonverbal behaviors and rarely initiate interaction. They express a limited number of speech acts and use restricted linguistic forms. They have limited opportunities to interact

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with other people.^{5,6,7}

We know absolutely that the skills and strategies required for successful augmented interactions are not intuitive and need to be taught.^{8,9} However, communication partner education and training is not necessarily a part of AAC intervention and, even when it is, communication partner training is rarely carried out systematically.

To ignore or de-emphasize systematic partner training severely limits the potential outcomes for augmented communicators. Recent research, in fact, suggests that easily administered programs can result in parents, peers and caregivers chang-

ing their behaviors in ways that improve the quality and quantity of the interactions augmented communicators engage in. When training occurs in natural environments, changes result after only a few training sessions, and these changes are maintained over time.^{10,11} These outcomes suggest that communication partner training is a cost-effective component of AAC intervention.

Circles of communication partners

The Circles of Communication Partners (CCP) is a paradigm adapted from Marsha Forest's Circle of Friends.³ While a CCP chart can be developed for anyone, it may be

particularly useful in AAC because it identifies the big picture, as well as specific training needs.² As shown in Figure 1, the augmented communicator is at the center. Emanating outward are five circles representing different types of relationships.

- The inner (first) circle contains the augmented communicator's life partners. These relationships exist "no matter what" and may include parents/guardians, spouse, siblings, children and grandchildren. Often, but not always, a person's most significant and frequent communication partners are in their first circle.
- Good friends are represented in the second circle. These are people that the augmented communicator trusts, spends time with and shares thoughts, feelings and ideas with. Relationships in the second circle are heavily dependent upon communication and language skills.
- The third circle is comprised of favorite neighbors, colleagues and acquaintances in the community. These relationships are dependent on mobility and often reflect how active people are outside their home (school, church, day program, community).
- The fourth circle includes people who are paid to interact with the augmented communicator – family doctor, dentist, neurologist, speech-language pathologist, occupational therapist, as well as personal attendants, instructional assistants, teachers and others.
- The fifth or outer circle represents the universe of unfamiliar partners. Some augmented communicators are out and about much of the time. However, many do not interact regularly with

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policy, legislation, service delivery and ethical issues are handled by the deaf community and whether the developing AAC community might contemplate similar approaches to quality control issues. Finally, the **AAC-RERC** section highlights two projects: (1) ACETS, which will prepare augmented communicators for employment and (2) Tech-Watch, which will monitor industries related to AAC to encourage technology transfers that can benefit AAC consumers.

Thanks to all who contributed to this issue. Please see **Resources and References**. I am particularly grateful to Rena Carney and Karen Morris, who encouraged me to write about this topic and were involved in its conception.

Now to the future. I WILL catch up with back issues of ACN this fall (northern hemisphere) or spring (southern hemisphere). I sincerely apologize for being behind most of the past two years.

I appreciate your patience and understanding throughout my tenure as ISAAC's president. Many say they appreciated the double issues from time to time because topics are covered in more depth. Please let me know your opinion.

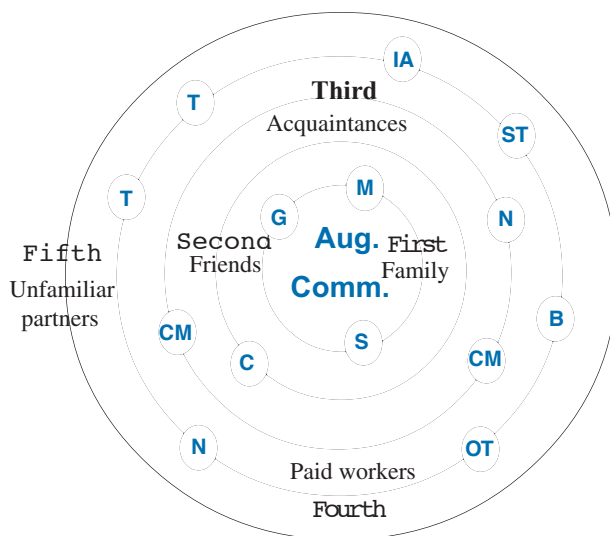
Life is good. Harvey Pressman and I are getting married. In August, we will be welcoming our 4th grandchild. Pretty efficient, eh? A toast to you and to your favorite communication partners.

Sarah W. Blackstone, Ph.D.,

Author 



Figure 1. Circles of communication partners (CCP)
(Example: Taylor, age 10 year)



unfamiliar partners for a myriad of reasons (e.g., lack of access to AAC, age, cognitive abilities, living situation or personal preference.)

A typical CCP for an augmented communicator shows most people in the first circle and the fourth circle, with comparably few in other circles. This reflects the impact of having a severe communication impairment, as well as the mobility problems many AAC users have.

By drawing up a CCP, clinicians may be able to more clearly identify important communication partners and better understand the impact that the communication impairment is having on the life and relationships of the augmented communicator. As one adult AAC device user has said, “loss of the speech function is not a loss of life, but a loss of access to life.”¹²

Assessment

Assessment is a first step toward improving the functional communication skills of an individual. Clinicians can use the CCP to:

1. *Identify partners.* Working with augmented communicators and those

who support them, the team gathers information about communication partners, then evaluates the data by filling out the CCP and considering whether (or not) the augmented communicator has a balance of relationships.

For example, Taylor, who is autistic, has a mother (M), grandparent (G) and sibling (S) in her inner circle, a cousin (C) in her second circle and a few classmates (CM) and a next door neighbor (N) in her third circle. Her fourth circle is packed with teachers (T), an instructional assistant (IA), a speech-language pathologist (ST), a behaviorist (B), an occupational therapist (OT), a neurologist (N) and others. Taylor’s fifth circle is mostly empty.

Looking at her CCP, it is clear that most of Taylor’s partners are paid professionals. Because she is nonspeaking and peers do not understand her attempts to communicate, friendships are very difficult. Focusing on training partners in her first four circles is important. Her outer circle is not a priority until she has the tools (and the inclination) to interact with unfamiliar partners.

2. *Gather information about partners.* The next step is for the

team to consider which communication partners: (a) are most familiar with the individual’s communication methods, (b) spend the most time with the user, (c) are most available, (d) are willing to facilitate interactions with others, (e) have the knowledge, skill and opportunities to train others and (f) are in the best position to assist the augmented communicator to develop new relationships.

Taylor’s assessment revealed that few of her partners are trained interactants. Her instructional assistant, who is with her seven hours a day, is not especially good at facilitating interaction. In fact, he is rather shy and withdrawn. To date, he had not participated in any training program to increase his skills either as a communication partner, or as one whose job it was to facilitate Taylor’s interactions with others. This is a problem that begs for a solution. He is key to the success of the intervention program, and can not be expected to “just know” how to support communication.

3. *Identify modes of communication.* The third step is to find out which modes of communication the augmented communicator uses with each partner, and under what circumstances. For example, Taylor uses only gestures, vocalizations and a few signs, except with her speech-language pathologist during their weekly therapy sessions. In these, she is learning to use a simple digitized speech device. The team believes Taylor will make more progress if she uses the device in more situations with more people.

4. *Identify augmented communicator’s role in training.* The team should always consider how much responsibility augmented communicators can assume for partner training, and what support

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they will need, both initially and for the long term.

Note: The ultimate responsibility for teaching people to interact with an augmented communicator should belong to the augmented communicator. AAC professionals, friends and family members should not take this responsibility away. Even individuals who, like Taylor, are young or have significant cognitive limitations, can learn to do things that modify a partner's behavior. Examples include: pointing to an explanation about how they communicate on a display or communication device, giving a picture to someone as a request (PECS system), vocalizing to attract attention, pointing to a picture and looking at a partner to request something, using a device to tell a partner "please hang on a minute, I have something to say," and looking at a speaking friend to request that she act as an interpreter during the interaction.¹³

Setting goals

After the CCP assessment process is complete, the team uses data from this process to help determine intervention goals. For example, goals for Taylor might include: (a) training her mother and instructional assistant as facilitators, so they can increase her opportunities to communicate and support her participation in these interactions, (b) increasing the number of partners she has in her second and third circles, (c) teaching peers to "wait" at least ten seconds to give her a chance to greet them, initiate interaction and respond and (d) expanding her use of graphic symbols and the AAC device.

When developing a treatment plan, the team needs to decide: (a) who will train which partners, (b) who will be trained first, second, third, (c) what each partner will be taught and (d) what training approaches will be used. [See the **Equipment** section for materials that support partner training.]

Reality check

It is important to keep in mind that people have lots of interests and responsibilities to juggle. If partners do not have the time, the resources or the desire to change their behaviors, they won't. Thus, whenever you sense resistance, ask about it, and then listen very, very carefully to what you are being told.

Because communication partners must learn to alter well-established patterns of interaction, successful training requires understanding and guided practice. Not everyone is a good candidate for training; and not everyone will succeed. Because resources are limited, it is advisable to invest time in educating and training those who are likely to: (1) improve their interaction skills and (2) learn how to facilitate the development of independent communication skills in the augmented communicator.

Importance of AAC

The CCP can also bring out the importance of augmentative and alternative communication (AAC). Just ask familiar partners to imagine what their lives would be like if the only people they were able to communicate with were family members and folks like their gynecologist, dentist, doctor and pharmacist.

Training unfamiliar partners

Unfamiliar partners are people in the augmented communicator's fifth circle. They become partners incidentally, or because the individual is trying to accomplish some task (e.g., order food in a restaurant, call a taxi). Because unfamiliar partners are almost never prepared to interact with someone who uses AAC techniques, it is crucial for augmented communicators to provide a short explanation (either using a speech

output device or pointing to a written note) about the communication methods they use. It is also important to provide information to partners about what they should do. If the user can not or does not choose to provide an explanation, a facilitator must be available, or interaction success is unlikely.

Temple University's Institute on Disabilities in Philadelphia has conducted workshops and run many courses for medical, dental and law school students, as well as professionals working in the judicial system, law enforcement agencies and victim service area. The courses are designed to raise awareness, provide information and teach AAC strategies. All are co-taught by consumers and professionals. Reported outcomes are very positive. For example, 600 fourth year medical students, residents, and attending physicians at the Temple University Medical School have been trained. Prior to training, only thirty-one percent said they knew how to communicate with patients who had a significant speech disability. Only eight percent said they felt comfortable about interacting with them. After a 2 1/2 hour training program, all reported knowing more about AAC strategies and techniques. Eighty-five percent said they felt more comfortable interacting with augmented communicators.¹⁴

Familiar partner training

Familiar partners are people who are a regular part of an augmented communicator's life (Circles one, two, three and four). These partners have a range of skills and abilities, but most benefit from learning some basic rules and strategies to optimize their interactions. One example of how to increase awareness is providing written information, as illus-

trated in Table I.¹⁵ Remember, however, that just reading something usually won't work. Modeling and guided practice are needed to change behaviors. Strategies are suggested throughout this issue.

Training facilitators

A facilitator is "one who makes things easier." People who facilitate communication are familiar partners who do things that enable interaction to occur (e.g., positioning, reminding peers to do or not to do something, instructing interactants to provide more pause time, preparing vocabulary, and so on.) An AAC facilitator provides assistance to both users and partners. Ideally, however, the facilitator is not an active participant in the interaction.

According to researchers, some of the most important strategies facilitators need to learn are:

- Structure the environment to support communication (e.g., ensure proper positioning, access to devices, techniques and strategies).
- Provide varied and meaningful opportunities for communication.
- Provide for involvement in motivating activities.
- Prompt only when required.
- Model the appropriate use of AAC techniques and strategies.

Table I. Ten quick and easy things to do when you meet an augmented communicator¹⁵

- 1 Introduce yourself.
 - Ask person to show you how he or she communicates. How do you indicate yes? How do you indicate no? Do you use a communication board? Do you use a communication device? Can you show me how?
- 2 Don't feel you have to keep talking if there is silence. Get used to a different pattern of interaction.
- 3 Pause and wait for the augmented communicator to construct a message.
- 4 Give the person an opportunity to ask you questions or make comments.
- 5 Don't finish the person's message unless you first ask permission.
- 6 Interact at eye level if at all possible.
- 7 Pay close attention to facial expressions and gestures.
 - Be honest. If you don't understand, admit it.
- 8 Ask the augmented communicator to tell you again, perhaps in a different way.
- 9 Talk directly to the person.
- 10

- Help communication partners (a) respond to users' communicative attempts, (b) give individuals enough time to communicate, (c) confirm their intended message, (d) share their focus of attention, (e) provide appropriate language input and (f) expect communication at an appropriate level.¹⁶

Fried-Oken and her colleagues suggest approaching training by teaching facilitators certain linguistic, strategic, social and operational

competencies. [See Table II.]

Linguistic competence. As appropriate, provide opportunities to convey both simple and complex messages. Model use of language forms the augmented communicator uses.

Strategic competence. Provide opportunities for augmented communicators to initiate communication (by focusing attention on the individual, pausing for ten seconds). Reinforce all attempts to communicate and confirm the message.

Social competence. Acknowledge a message by doing something that relates to it. Greet the augmented communicator and expect interaction. Learn to establish eye contact at the same level. Act in a patient manner during moments of silence. Learn to wait.

Operational competence. Encourage and validate the use of the AAC system (by using the same system, if appropriate, or modeling an answer if the individual does not respond). Be responsive to changing needs by checking to see if the system needs updating. Ask about updating vocabulary and so on.¹⁷

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Table II. Communicative competencies for the facilitators of augmented communicators (adapted f from Fried-Oken, Sharp, Femmer, Staehely, 1999)¹⁷

LINGUISTIC COMPETENCE	STRATEGIC COMPETENCE	SOCIAL COMPETENCE	OPERATIONAL COMPETENCE
Insure the augmented communicator practices in natural contexts.	Reinforce augmented communicator's attempts to interact.	Establish eye contact and sit at the same level as the augmented communicator.	Be familiar with the operations of the device.
Provide models for using AAC devices and strategies for initiating and maintaining conversations.	Make sure you and the augmented communicator are talking about the same thing.	Greet the augmented communicator when you first enter a room and wait for a response with an expectant facial expression.	Be familiar with the operations of all other forms augmented communicator uses.
Know the communication system of the individual you are supporting.	Repeat what the augmented communicator says to confirm the message.	Be patient during moments of silence.	Assist in keeping vocabulary up to date.
Convery simple messages (by asking yes/no questions, giving two choices).	Don't just confirm, elaborate upon what is said by the augmented communicator.	Pause, count to ten: give the augmented communicator time to initiate conversation.	Be able to report which symbols the augmented communicator uses.
Convery complex messages (by asking open-ended questions).	Identify the times when you "don't get it."		
	Provide these visual cues when you talk: a) gesture, b) draw pictures, c) point to pictures and d) write down words.		


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After developing these competencies, facilitators also need to learn how to support both augmented communicators and their communication partners during different kinds of interactions.

Outcomes measurement

The CCP chart can help clinicians monitor progress and measure outcomes. Over time, the CCP will document increases in the number of trained partners and types of relationships maintained. These data are likely to directly reflect the quality of a person's life and the functional changes they are making toward the development of communicative competence.

Final thoughts

Communication partner training is a cost-effective investment in the future independence, joy, satisfaction and fulfillment of an augmented communicator's life. Approaching AAC intervention from a framework that enables clinicians to support partners, as well as to focus on the individual's language and communication issues, reflects best clinical practice. 

On the Web



E-mail survey

I asked seven augmented communicators about their conversational experiences. They reported (not surprisingly) that they prefer communicating with people in their first Circle (parents, siblings, adult children) and second Circle (friends). Only one said a paid care provider was a preferred partner. Characteristics of their favorite partners are:

- * They have real conversations with me.
- * They have a genuine interest in what I say.
- * They have an ease to their communication.
- * They understand my speech.
- * They are patient when I use my device.

One respondent pointed out that, independent of preferences, the living situation you are in will largely determine whom you talk with.

Consumers said that natural speakers do a number of things that make them "good" partners. These include being patient, interested and comfortable with all methods of communication, as well as trying to understand impaired speech, making an effort to interpret signs/gestures, being comfortable with moments of silence, repeating and confirming messages and admitting when they don't understand what is said.

Characteristics of partners that respondents said were not desirable include:

- Finishing my thoughts (without permission). Doing other things while I am keying in a response or question.
- Making me use an AAC device as a first mode of communication.

Most, but not everyone, agreed that being a good communication partner is a skill that can be taught. They suggested the best ways to learn these skills are to be around

people who use AAC. Other strategies they feel might work are engaging in activities that involve reversing roles, and role-playing.

Familiar partners

In response to the question, "What type of AAC system do you prefer when talking face-to-face with familiar partners," most participants said "speech," referring to both natural speech and synthesized speech. One person preferred using a low-tech device and/or signs and gestures.

Respondents said they relied on their natural speech with familiar partners "some of the time," but no one could rely on it "all of the time" because environmental conditions (e.g., noise) and internal states reduce their intelligibility.

When I feel tense, it's easier and less stressful to use AAC techniques than to strain and struggle to get out a word.

Unfamiliar partners

Most said they prefer having a familiar person around to support their interactions. All respondents said they prefer using speech output devices when communicating with strangers, because:

I am in control of the device and don't have any limits on what I can say. I am able to produce intelligible utterances with the device. I can talk about something specific.

Reportedly, some unfamiliar partners do things that positively affect the communication process, such as repeating message components, asking for confirmation, showing an interest and being patient. Behaviors of unfamiliar partners that can interfere with successful communication include: (1) asking too many questions at once, (2) making negative assump-

tions about disabled people and (3) being unable/unwilling to “read” messages constructed with low-tech displays, signs or their natural speech.

Facilitators

In response to a question about the role of facilitators, these individuals said they expect communication facilitators to:

- * Get my AAC device ready (e.g., make sure it is fully charged).
- * Understand my speech, facial expressions and gestures.
- * Be very patient with me.
- * Know when to predict what I am saying and when to “hear me out.”
- * Show empathy (match my mood when speaking).

They also want facilitators to help them talk to other people by:

- * Telling my partner how AAC works.
- * Rephrasing or suggesting I slow down if I’m without my device.
- * Interpreting and “translating” my speech.
- * Encouraging partners to admit they are lost, so I can go back and try to rephrase.
- * Telling partners to be patient because it takes me a while to respond to their questions.

End note

Respondents said they did not enjoy interacting with familiar or unfamiliar people who are:

Rude, impatient. Look at me like I haven’t got a brain. Make me wait until all others are waited on. Talk down to me. Insist on only talking when I use a device. Interrupt me. Show a lack of

interest. Shout at me when they know I can hear. Treat me as though I am stupid. Don’t have time. Use the power of their speech to overpower my robotic voice. Use the power of their spoken language to control the interaction.

This litany of behaviors further confirms the need for communication partner training and the responsibility we in the field hold for improving such appalling conditions.



For Consumers



intervention, or may have had inappropriate AAC intervention. These individuals depend heavily upon familiar

partners to facilitate their interactions.

The focus of AAC intervention for this group is to identify a reliable method of intelligible communication and to provide sufficient partner support so that individuals have opportunities to express themselves effectively throughout the day. Successful outcomes will reflect whether (or not) a reliable method of communication is being used.

2. *Dependent communicators.*

Individuals with dependent expressive skills communicate reliably using both symbolic and nonsymbolic modes. While they can express a range of communicative functions, they often remain dependent on familiar partners, because the modes of communication they use (e.g., partner-assisted scanning, eye-coding or severely dysarthric speech) are not easily understood by their partners.

Individuals may also be dependent

communicators because they have had little or no AAC intervention, do not have adequate or appropriate vocabulary and/or are unable to produce novel messages.

Goals for AAC services are to increase their access to vocabulary and develop their literacy skills. Other goals are to decrease their dependence, expand their communication partners and increase the number of topics they can converse about. Progressing from a dependent to an independent communicator often takes many years. Dowden suggests intervention should be very systematic and well documented.

3. *Independent communicators.*

Individuals with independent expressive communication skills can interact with both familiar and unfamiliar partners about any topic. These individuals may or may not use equipment, and may or may not have receptive and cognitive skills that are considered normal or age-appropriate. Independent communicators may choose to depend on a familiar partner or a facilitator to provide support from time to time.

Different strokes for different folks

Pat Dowden, a respected AAC clinician and researcher, recently identified three groups of augmented communicators based not on their receptive language, but solely on their current expressive communication skills.¹⁸

1. *Emerging communicators.*

Individuals with emerging expressive communication skills have no reliable method of symbolic communication. They communicate using gestures, facial expressions, vocalizations, etc. These non-linguistic and often idiosyncratic forms significantly limit the range of messages they can convey.

Emerging augmented communicators may be very young, older with significant developmental delays, or adults with severe acquired disabilities, including language impairments. Emerging communicators may not have had access to AAC

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Table III. The role of facilitators with emerging, dependent and independent communicators (adapted in part from Dowden, 1999)¹⁸

TYPE OF PARTNERS	EMERGING COMMUNICATOR	DEPENDENT COMMUNICATOR	INDEPENDENT COMMUNICATOR
FAMILIAR PARTNERS	Augmented communicator requires support under most conditions. Interaction depends upon facilitator's ability to set it up and support both partners. Some partners require only minimal support; others have difficulty even after being trained.	Facilitator often supports interactions, but does not need to orchestrate their occurrence. Facilitator sets up and maintains equipment and also provides vocabulary, as needed. The level of support required depends upon each partner's familiarity with the user's ways of communicating.	Facilitator has a limited role. May set up and maintain equipment. The augmented communicator takes responsibility for directing the facilitator's activities, <i>i.e.</i> asks for assistance, specifies the support required, and so on.
UNFAMILIAR PARTNERS	Limited interaction with these partners. Dependent upon facilitator because communication modes are not recognized by others.	During these interactions, the augmented communicator and the partner generally need support. Facilitator often prepares vocabulary in advance to ensure the device/technique is ready for the situation.	Generally uses a voice output device and does not require assistance. May need support in other circumstances. Is able to provide information to partners about how to communicate and about the AAC system

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Goals often focus on increasing the speed of communication and refining social interaction skills. Independent communicators define their own desired outcomes and reasons for intervention. Children can do this at an age-appropriate level. Professionals assist independent communicators by teaching new strategies, recommending new equipment and/or modifying existing AAC technologies and techniques.

Role of facilitators

Using Dowden's groups, it seems possible to set forth some more explicit expectations about the roles communication facilitators might play in addressing the widely diverse needs of augmented communicators and their communication partners. The thoughts below and those in Table III represent only a "first cut" at a more conceptual basis for approaching communication partner training. Please let us know what you think.

- **Emerging communicators** need maximal support from a skilled facilitator. The facilitator must be able to encourage interaction, understand and interpret idiosyncratic behaviors and support both augmented communicators and their partners during an interaction. In addition, a facilitator must encourage the emerging communicator to use

more conventional expressive forms. Facilitators provide communication opportunities and model the use of targeted AAC techniques. In addition, facilitators often use augmented input, which may include gestures, signs, graphic symbols, text, spoken or tactile prompts. While facilitators encourage the use of symbols and conventional modes of communication, they also understand that communication is not only a means to an end, but also an end in itself. AAC techniques are not what communication is about. It's the message that matters.

Facilitators of emerging communicators make every effort to support all communication partners, but their real job is to stay out of interactions and encourage direct communication between augmented communicators and their familiar partners.

Although emerging communicators tend not to interact with people they don't know, when they do, both partners require considerable support.

- **Dependent communicators** use conventional linguistic and nonlinguistic forms. Even so, they often need a facilitator to assist them. The facilitator's major roles are to provide access to the vocabulary that the user needs and to act as an interpreter or

translator when communication partners are unable to understand the message. For example, partner assisted scanning, eye gaze systems, alphabet boards and even a person's dysarthric speech will require that partners are familiar with the technique and how messages are constructed. This requires training and practice. Ideally, the facilitator can explain and demonstrate how a technique works and then stand back in case of communication breakdowns.

Other important things facilitators may do to support a dependent augmented communicator include: (1) set up a device for communication, (2) make sure it is fully charged, (3) make phone calls and (4) program new vocabulary. Over time, the augmented communicator may learn to direct these tasks.


When the individual who uses AAC is conversing with familiar partners, facilitators may (or may not) need to provide support to both interactants. Ideally, the facilitator would wait until the augmented communicator requests help to interpret, help to repair a breakdown, reinstruct the partner in the technique being used, and so on.

However, when dependent communicators interact with unfamiliar partners, a facilitator

is nearly always required. Facilitators often act as interpreters or translators of the message. In addition, they may help by writing letters, preparing presentations and doing other business for the dependent communicators, because of the difficulty many have expressing novel thoughts with a limited vocabulary.

- **Independent communicators** need a communication facilitator only on rare occasions. Because they are literate and have access to AAC techniques that others find easy to understand, the facilitator's role tends to be directed toward setting up and maintaining equipment. However, facilitators also carry out requests to translate dysarthric speech, make phone calls or program a device.

Summary

Dowden's paradigm, describing three groups of augmented communicators based solely on their current expressive communication skills, can help clarify and further define the different role communication facilitators need to play when supporting augmented communicators with familiar and/or unfamiliar partners. Her groupings may also help make more explicit our expectations of communication facilitators under varying circumstances. 

Equipment



Training materials

Training someone to facilitate interaction is not a one shot deal. Offering off-the-cuff suggestions (e.g., "pause for ten seconds and look expectant"), conducting an inservice or workshop, providing a check list, a special training package, a new chapter on communication partners or a written report with training suggestions may all help, but no single one of these approaches will suffice to change communication behaviors.

A prerequisite to helping adult partners learn is to understand *how* they learn. Adults learn by doing, by seeing and by being coached. The materials reviewed below take into account these (and other) basic learning principles.

Communicating matters

Communicating matters: A training guide for personal attendants working with consumers who have enhanced communication needs, (in press) by Barbara Collier. This video and manual focus on training adult attendants to communicate effectively with augmented communicators. The materials target "dependent communicators" and the needs of personal assistants.

The video provides excellent examples of competent augmented communicators using a range of low-tech and no-tech strategies to make choices, express opinions and manage their own affairs. Personal assistants learn how to communicate effectively by asking open-ended questions, getting familiar with communication boards, giving object

choices, and much more. In addition, the video demonstrates ways a personal assistant/facilitator

can handle phone calls appropriately for dependent communicators.

To be available from Paul H. Brookes Publishing Co., POB 10624, Baltimore, MD 21285. <http://www.pbrookes.com>

Making connections

Making connections: A practical guide for bringing the world of voice output communication to students with severe disabilities, (1999) by Peggy Locke and Jackie Levin. This 78-page guide focuses on helping communication partners introduce voice output communication devices to emerging and dependent communicators. While only a few pages directly relate to partner training, the guide provides a useful, easy-to-follow approach that family members (first Circle) and people paid to support augmented communicators (fourth Circle) can refer to when introducing simple voice output technology.

Available from AbleNet, Inc., 1081 10th Avenue, SE, Minneapolis, MN 55414. <http://www.ablenetinc.com>

Communicating effectively with persons who use AAC

Communicating effectively with persons who use AAC, (1996) by Yvonne Gillette. This 30-minute video and guide is designed for students (speech-language pathologists) in preservice programs. The program provides strategies for three types of augmented communicators.

Early augmented communicators (those who do not regularly send or respond to messages).

Novice augmented communicators (those who understand and send messages but require more advanced methods to fully participate).

Equipment, Continued from page 9

Advanced augmented communicators (those who can understand and send messages but need to enhance their participation skills).

The video begins with three “what’s wrong with these interactions” scenarios. Then, an on-camera instructor talks about effective strategies, which are subsequently demonstrated. Despite the clinical, didactic feel to the video, the concepts and strategies depicted are important ones:

1. Establish a partnership by following the augmented communicator’s lead, initiating routines and sharing the lead.
2. Develop routines together by (a) balancing turns in play and conversation, (b) waiting, signaling and expecting the augmented communicator to take a turn and (c) communicating responsively to shift the power to the augmented communicator.
3. Share emotionality and enjoyment by talking about your own feelings and showing emotion in your voice and face.
4. Exchange messages by (a) communicating briefly, then pausing to provide space for the user’s messages, (b) using messages similar to those that the individual uses and (c) using comments more than questions or commands.

Available from Innocomp, 26210 Emery Road, Suite 301, Warrensville Heights, OH 44128. innocomp@aol.com

AAC skill development

Augmentative and alternative communication skill development package, (1997) by Marsha Lester-Cribb. This comprehensive program is intended to be used by an augmented communicator and a natural speaker to improve their interaction skills. The package contains four topic-based booklets and an accompanying resource video. Topics are:

1. Individuality and control in relationships, which covers assumptions people make, conversational control and its effects and other communication behaviors.

2. Time, which addresses ways augmented communicators and natural speakers use time during interactions. It also deals with silence and rate issues.

3. Eye gaze and facial expression, which depicts ways eye gaze and facial expressions are used in communication.

4. Misunderstandings, which discusses misunderstandings and ways to prevent them, as well as how to deal with them when they occur.

Developed as part of a research project conducted at the University of Stirling in Scotland, the package is designed to give AAC users as much control over the communication process as possible. Suggested procedures are for partners to videotape themselves having a chat and then decide which strategies to work on. The videotape (PAL-format) is didactic and integral to the training manuals. Many good points are made throughout the program.

Available from AAC Research Team, Department of Psychology, University of Stirling, Stirling FK9 4LA Scotland.

Building communicative competence

Building communicative competence with individuals who use augmentative and alternative communication, (1998) by Janice Light & Cathy Binger. This 250+ page book is a step-by-step, well researched guide for teaching augmented communicators three specific skills to enhance communicative competence. The skills are an introduction strategy, turn taking and partner-focused questions.

In addition to a focus on the augmented communicator’s skill development, the book is a marvelous instructional guide for teaching communication partners/facilitators the skills they need to support an augmented communicator’s development of communicative competence. For example, the authors identify the following procedures for teaching

facilitators:

1. The clinician meets with facilitators one-to-one, or in a small group.
2. The facilitator(s) and clinician review the goal and discuss its importance.
3. The clinician and facilitator(s) discuss strategies currently being used to support the individual’s communication and to encourage facilitator(s) to continue using these strategies
4. The clinician explains the target facilitator strategy.
5. The clinician demonstrates the target strategy and discusses the impact of using it versus not using it.
6. Facilitators practice using the strategy with the augmented communicator.
7. The clinician provides feedback to the facilitator(s) to improve performance.
8. The clinician evaluates whether (or not) the instruction is effective.
9. The clinician checks with the facilitator(s) and the individual who uses AAC, as appropriate, to insure their satisfaction with the instruction.
10. The facilitator(s) practice using the target strategy in a wide range of daily interactions with the augmented communicator.
11. After instruction is completed, the clinician monitors the facilitators’ continuing use of the strategy.¹⁹

The instructional program has undergone systematic field testing to ensure its effectiveness and can be adapted to meet a range of AAC needs.

Available from Paul H. Brookes Publishing Co., POB 10624, Baltimore, MD 21285. <http://www.pbrookes.com>

Other highly recommended resources

Space precludes an adequate description of all the resources I uncovered. Thus, I’ve listed some other very good references on page 11. Please take a look for yourself.

Attitudes and strategies towards AAC: A training package for AAC users and carers, (1995), by Joan Murphy & Janet Scott. Video and manual. Available from AAC Research Team, Department of

Psychology, University of Stirling,
Stirling FK9 4LA Scotland.


The Augmented Chronicles: Essays by augmented speakers about their experiences with augmentative communication and personal assistants, (in press) edited by Melanie Fried-Oken and Hank Bersani. Book (based on a training publication.) To be available from Paul H. Brookes Publishing Co., POB 10624, Baltimore, MD 21285.

Don't hang up: A training package to help people with communication difficulties use the telephone more effectively, (in press) by Joan Murphy & Janet Scott. Video and manual. Available from AAC Research Team, Department of Psychology, University of Stirling, Stirling FK9 4LA Scotland.

Picture It: Partners in Communication Training: Using real environments through interactive teaching, (1996) and *The Triple C - Checklist of Communication Competencies* (Video and Assessment Package), by Karen Bloomberg & D. West. Both are available from SCIOP/Spastic Society of Victoria, PO Box 381, St Kilda, Victoria, 3182 Australia.

prAACtically speaking Functional Communication Strategies, (1996) by Karen Bloomberg. Video and manual. Available from Functional Communication Outreach Service (FCOS) 705 Geelong Rd., Brooklyn Victoria, 3025, Australia.

See what we say: Vocabulary and tips for adults who use augmentative and alternative communication, (in press) by Barbara Collier. Manual. To be available from Paul H. Brookes Publishing Co., POB 10624, Baltimore, MD 21285.

Talking to people with severe communication difficulties: An introductory training video, by Joan Murphy & Janet Scott. Video and leaflet. Available from AAC Research Team, Department of Psychology, University of Stirling, Stirling FK9 4LA Scotland. 

Governmental



Parallels to the deaf community

Two quite different groups of people who experience severe communication difficulties include those who are deaf/severely hearing impaired and those who are unable to speak because of severe speech and language impairments. In both cases, they require accommodations and appropriate assistive technologies to interact with people at home and in their communities. Without these tools and techniques, people with severe communication impairments are categorically denied access to language, to their social milieu, to the political process, to education, employment and self determination. Obviously both people who are deaf and those who are unable to speak for other reasons find this unacceptable. This article seeks to compare how each community is dealing with the quality of services it receives.²⁰

Some history

People who are deaf learn a common language/means of expression and are able to communicate with one another across distances, using TTDs and other technologies. As a result, the deaf community has developed a strong political agenda and, after years of advocacy, they now have well-established requirements and standards for interpreting services, a code of ethics for the provision of clinical and support services, and regulations for the hearing aid industry. Our small, more diverse AAC community does not.

Individuals who use AAC, while

understanding the language spoken around them, rarely have opportunities to interact with each other.

In fact, it has only been in the past five to ten years that augmented communicators had the means even to begin to form a community. Intelligent voice output communication devices, low-cost computers with fast modems and the Internet are providing the necessary tools. Organizations like ACOLUG, the Pittsburgh Employment Conference (PEC) and regular consumer-attended conferences sponsored by some (but not all) of ISAAC's chapters and associated groups, are beginning to provide the means. These venues are enabling augmented communicators to take the time they need to discuss the issues they feel are most important, share stories they want to share and perhaps, over time, begin to plan a political agenda that they want enacted. What has the deaf community done with regard to insuring quality of the interpreting services they require? Might the AAC community want to follow a similar path? Does the AAC community feel that credentialing and certification will result in a higher quality of facilitator/interpreter services over time? These are just some of the parallels to consider.

Interpreters & teachers

The deaf community has deaf interpreter services and certification requirements at the local, state/provincial and national levels. For example, the National Registry of Interpreters (RID) works to provide what they refer to as the three Q's of interpreting: Quantity, qualification and quality. Their mission is to

Continued on page 12

Table IV. Code of ethics for interpreter services²¹

1	Interpreters/transliterators shall keep all assignment-related information strictly confidential.
2	Interpreters/transliterators shall render the message faithfully, always conveying the content and spirit of the speaker using language most readily understood by the person(s) whom they serve.
3	Interpreters/transliterators shall not counsel, advise or interject personal opinions.
4	Interpreters/transliterators shall accept assignments using discretion with regard to skill, setting, and the consumers involved.
5	Interpreters/transliterators shall request compensation for services in a professional and judicious manner.
6	Interpreters/transliterators shall function in a manner appropriate to the situation.
7	Interpreters/transliterators shall strive to further knowledge and skills through participation in work-shops, professional meetings, interaction with professional colleagues, and reading of current literature in the field.
8	Interpreters/transliterators, by virtue of membership or certification by the RID, Inc., shall strive to maintain high professional standards in compliance with the Code of Ethics.

Governmental, Cont. from page 11

promote excellence in the delivery of interpretation and transliteration services among those who are deaf/hard-of-hearing and people who are hearing, to ensure effective communication. They offer: (a) training for new and professional interpreters through the professional development committee (PDC), (b) a certification maintenance program (CMP), (c) continued certification through RID’S national testing system (NTS) and (d) self-regulation through a national ethical practices system (EPS).²¹

Teachers of the deaf and interpreters for the deaf must be certified. According to RID,

Sign Language/spoken English interpreters are highly skilled professionals. They must be able to listen to another person’s words, inflections and intent and simultaneously render them into the visual language of signs using the mode of communication preferred by the deaf consumer. The interpreter must also be able to comprehend the signs, inflections and intent of the deaf consumer and simultaneously speak them in articulate, appropriate English. They must understand the cultures in which they work and apply that knowledge to promote effective cross-cultural communications.²¹

The Americans with Disabilities Act requires the provision of “qualified” interpreters in a variety of settings. The Act states that to satisfy this requirement, the interpreter must have “. . . the proven ability to effectively communicate.”

One important measure of an interpreter’s proven ability is a professional credential. Credentials are obtained by taking and passing an assessment of skills. The National Registry of Interpreters for the Deaf (RID) provides testing for national certification. Assessments by the National Association for the Deaf (NAD) and other state agencies may also be accepted by employers.²¹

The Registry of Interpreters for the Deaf, Inc. has set forth principles of ethical behavior to protect and guide interpreters and transliterators, and the hearing and deaf consumers they serve. This Code of Ethics, which is shown in Table IV, applies to all members of the Registry and to all certified non-members.²¹ [See <http://www.rid.org>]

AAC facilitators

There are no national, regional, state/provincial or local programs that I am aware of that teach (or certify) individuals who act as communication facilitators for people with severely impaired speech who

use AAC techniques and require a communication facilitator.

[Note: One possible exception is the Speech-to-Speech, a telephone relay system for persons with speech impairments. Operators are being trained.]²²

There are no certification requirements either. Currently, the job of communication partner/facilitator is assumed by an aide, personal assistant, speech-language pathologist, teacher or family member who may (or may not) have had any training in how to act as an interpreter and to facilitate communication between individuals who use AAC and their various communication partners.

While rights granted under the I.D.E.A. and A.D.A. in the United States cover people who are deaf and those who are severely speech impaired for other reasons, the AAC community does not have certification requirements for facilitators related to either the quality or the ethics of these services or regulations for AAC technologies. There does exist a *Communication Bill of Rights*; and ASHA is taking under consideration the issue of recognizing speech-language pathologists who specialize in the area of AAC.²³



The AAC-RERC



Six of sixty (months)

The AAC-RERC just completed six months of a five-year project funded by the National Institute for Disability and Rehabilitation Research. This issue highlights the ACETS and Tech-Watch projects, which are both among the AAC-RERC partner projects.

ACETS: Employment research

ACETS (pronounced assets) is the Augmentative Communication Employment Training and Support program located at the Institute on Disabilities/UAP within Temple University in Philadelphia. The goal of this five-year project is to develop and implement a curriculum to train at least 25 augmented communicators to significantly increase their vocabulary, knowledge and skills related to employment, especially in fields that rely on the Internet. Augmented communicators who graduate will have in-depth work-related skills and experiences enabling them to be employed or self-employed. Staff will disseminate the curriculum through the AAC-RERC, the Institute on Disabilities and other collaborating AAC-RERC partners, at the end of the project.

Key staff are Diane Nelson Bryen, principle investigator, Kevin Cohen and Leonard Kasday. All are from the Institute on Disabilities. In addition, Lou Heite, a graduate student (Temple University) and four augmented communicators (David Chapple, Gus Estrella, Leigh Ann Lightholder and Solomon Rakhman) will be working on the project. Augmented communicators are

providing direction, training and input to all aspects of ACETS. The first ACETS training program will begin in October 1999.

Recruitment for the initial cohort of augmented communicators is underway. At present, there are five applicants for the six possible spaces. To participate, individuals must have significant speech disabilities, be between 18 and 64 years old, use a communication device for face-to-face communication, be able to interface their communication device with a computer, be familiar with the Internet, and have a strong desire to work.

The ACETS curriculum includes a one-week program and may encompass up to a year of an internship or focused training with an ACETS business affiliate or mentor. ACETS staff have conducted focus groups (both face-to-face and through e-mail) in an initial effort to determine what topics to include in the training. Staff are also recruiting business affiliates (e.g., UNISYS, Temple University's Small Business Development Center, The Census Bureau and others) and asking them to share: (a) descriptions and requirements of jobs in their company, (b) information about the company's "work" culture and (c) feedback about experiences they have had with people who have disabilities. Businesses may participate in the training program and provide mentorships and/or internships. In exchange, ACETS is offering to help companies become better prepared for a diverse workforce, accommodate employees who use AAC approaches, establish mentorship programs to maximize the contribution of employees with significant disabilities and establish internship programs for employees

with significant speech disabilities who use assistive technology to communicate.

The training program is designed to answer the following research questions:

- What skills do competent AAC users have prior to enrolling in ACETS, and what do they need?
- What are the outcomes for graduates of ACETS on: (a) increasing their computer/telecommunication skills, (b) employment-related vocabulary and communication, (c) small business planning skills, (d) job-seeking skills and (e) job readiness skills?
- What is the impact for ACETS? Do its graduates increase their full-time and part-time employment (including income, benefits, etc.) in the extant private sector or their own businesses?
- Employer-related questions are: (a) what issues do businesses need to address prior to hiring AAC users, (b) what accommodations do businesses need to make and (c) what accommodations are most difficult to make, and why.

ACETS staff are collaborating with AAC-RERC staff at Penn State, who are also conducting an employment-related project. [See volume 11, #6 of ACN.] The AAC-RERC's attention to employment issues promises the field information and strategies that will enhance the likelihood of more augmented communicators becoming successfully employed.

For more information, contact Diane Nelson Bryen or Kevin Cohen, Institute on Disabilities/UAP, Temple University, 1301 Cecil B. Moore Avenue, 423 Ritter Annex, Philadelphia, PA 19122. 215-204-2247 (voice); 800-750-7428 (TTY); 215-204-6336 (FAX). diane@astro.temple.edu or kcohen@nimbus.temple.edu Check out two Websites: <http://www.aac-rerc.com> and http://www.temple.edu/inst_disabilities

Tech Watch Project

The Communication Enhancement Technology Watch project is beginning to monitor and seek out technological developments—in both the commercial market and in laboratories around the world—that have products with potential applications for AAC in the pre-release stages of development. The desired outcome of the Tech-Watch project is to facilitate the transfer of state-of-the-art technologies into AAC products. If successful, AAC consumers, manufacturers, developers, service providers and others interested in the efficiency and effectiveness of AAC technologies will benefit.

A number of technology categories are being monitored in search of developments that could result in improved portability, durability, speech, access, displays and more. Kevin Caves, principle investigator (soon to be at Duke University), Frank DeRuyter (Duke University) and Howard Shane (The Children's Hospital, Boston) are working on this project.

The current focus is on establishing the monitoring protocols and collection formats for the project. Areas that the AAC-RERC is beginning to monitor are:

Battery life - Typically, AAC device batteries are standard NiCd or NiMH rechargeable batteries that require an AC transformer to recharge. Recharge times are 8-10 hours. Different devices use different style batteries (from AA to block batteries weighing 2-3 pounds). New battery technology is desired that would be smaller, lighter, longer lasting, cost effective and require shorter recharge time.

Computer technology - Dedicated AAC devices use a variety of computer technologies including microprocessors, RAM, PC Card technology, speakers, storage devices, integration, IR technology and keyboard development, among others. New computer technology

is desired that would take advantage of higher speed processors and increased durability and portability.

Display technologies - Touch screen and dynamic display communication systems use computer displays that present information in color and whose layout can change based on what the user is currently communicating. For example, a user could start a dynamic display device with a page containing the alphabet for spelling out messages, then change to a page of custom messages that can be retrieved with a single keystroke. Display technology is desired that would have high resolution in bright lights, scratch/water resistance, low power consumption and touch screen technology.

User interface strategies - A variety of access methods are employed by users of AAC technology. New user interface strategies (e.g. control by eye, sound, mind, etc.) or improvements to existing user interface strategies (keyboard, touch screen, encoded input, switch scanning, etc.) are desired that would improve the user's performance and simplify setup of the device for the user or caregiver.

Vocabulary retrieval/encoding software - Strategies or programs that could be used to increase the rate at which a user is able to generate unique messages are required.

Keystroke rate enhancement software - Strategies or programs that could be used to increase the rate at which a user is able to generate keystrokes are needed.

Authoring environments software - Software that will allow parents, teachers and therapists to customize communication and educational materials is sought.

Therapy tools - There is a need for software solutions that will develop skills in AAC, as well as maximize speaking potential.

Synthesized speech output - AAC technologies are currently standardized on DECTalk, recognized as the highest quality synthesized speech output currently available. Synthesized speech output technology is desired that is more natural, intelligible and emotive.

Digitized speech output - AAC technologies also employ digitized (recorded) speech. Digitized speech output and compression technology are desired that have improved quality and

clarity, fast recording and play back performance and reduced storage requirements.

Speech filtering technologies - Several devices on the market attempt to clarify speech. Technologies are needed that filter or clarify an individual's speech so that a communication partner can understand it.

Voice recognition software - Several voice recognition systems for personal computers are on the market that, once properly trained, do a reasonable job of converting speech to text. Technologies are needed that enable individuals with speech impairments to convert impaired speech to text for communication or writing.

Information is currently being collected from a growing variety of resources, including the Southeast Region for the Federal Laboratory Consortium (FLC), which promotes and facilitates the rapid movement of research results and technologies into the mainstream of the U.S. economy. Project staff are monitoring industry alerts and the Internet for related technologies as well. They sincerely welcome input from the field.

For additional information, contact Kevin Caves, **AAC-RERC**, Box 3888, Duke University Medical Center, Durham, NC 27710. Phone: (919) 681-9983; FAX: (919) 681-9984; Email: kcaves001@mc.duke.edu

Visit the AAC-RERC Website at: <http://www.aac-rerc.com>

[The AAC-RERC section is partially funded by the National Institute on Disability and Rehabilitation Research of the Department of Education under grant number H133E9 0026. The opinions are those of the grantee and do not necessarily reflect those of the U.S. Department of Education. This article was published June, 1999.]

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Resources

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 Technical Editor: Carole Krezman
 Managing Editor: Harvey Pressman
 One Year Subscription: Personal check U.S. & Canada = \$50 U.S.; Overseas = \$62 U.S.
 Institutions, libraries, schools, hospitals, etc.: U.S. & Canada=\$75 U.S.; Overseas = \$88 U.S.
 Single rate for this issue = \$20.
 Special rates for consumers and full-time students. Periodicals Postage rate paid at Monterey, CA. POST-MASTER send address changes to **Augmentative Communication, Inc.** 1 Surf Way, Suite 237, Monterey, CA 93940. Telephone: (831) 649-3050. FAX: (831) 646-5428. e-mail: sarahblack@aol.com

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Periodicals

Consumer/User Book

ISAAC's Board of Directors announced a project to publish a book comprised of the *creative expressions* of augmented communicators. Please help make this happen!

Work must be submitted by October 15, 1999. A letter of intent to submit is requested by September 1, 1999.

Augmented communicators may submit "any creative writing, drawing, painting, dramatic work, musical score, photograph or other creative art which can be represented on paper in black and white."

Contact the ISAAC Secretariat, 49 Donway West, Suite 308, Toronto, Ontario M3C 3M9 Canada.
www.isaac_online.org

The Ninth Symposium on Literacy & Disabilities
 Embassy Suites, Research Triangle Park NC, February 3-5, 2000.

Concurrent session will include seven broad program areas (strands): (1) inclusion; (2) augmentative and alternative communication and other assistive technologies; (3) individuals with severe profound disabilities; (4) preschool-aged children with disabilities; (5) elementary school-aged children with disabilities; and (6) adolescents and adults with disabilities.

For more information please contact Janet Sturm at (919-966-1009) or David Yoder (919-966-9040 or dyoder@css.unc.edu) at the University of North Carolina.



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