

Upfront



THAT hogwash!" *Interior dialogues are a key component of our private lives and serve a variety of cognitive*

Okay. I'll admit it. I talk to myself. In fact, I engage in an ongoing dialogue with "me." Often it's a disjointed stream of consciousness, but sometimes it is helpful, fun, creative and even enlightening.

What about you? Do you ever make lists, think about what you want to say before you say it, or repeat a phone number to help you remember it? Do you console or counsel yourself when you are upset? Have you ever given yourself a "pep talk" or reflected on your own or someone else's behavior? Do you review things in your mind that you've read, seen or heard?

We all communicate with ourselves for a variety of different purposes and in a myriad of ways. Some people hear their own "inner voice." Others may just sense or see words, letters or images. Our interior dialogues are typically unobservable, although some people mouth or mutter their private thoughts and/or draw, write or doodle.

Interior dialogues do not just occur when we are alone. They often accompany our interactions. For example, we may reflect on what is being said and think about what we will say next. Our minds may wander away from the subject being discussed. Or, we may think something that we would never say out loud, such as, "Well isn't

and emotional functions, including self-regulation, planning, creating, organizing, experimenting, self-parenting, playing, encouraging, inhibiting, reflecting, learning and developing new skills. In fact, interior dialogues are key to self-development, self-discovery and self-actualization.¹

Do individuals with complex communication needs who rely on AAC engage in interior dialogues? You bet they do! Do we know much about the nature of these

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For Consumers



individuals (interpersonal) is not the only type of communication that occurs.

Interior dialogue and AAC

The Merriam-Webster's Online Dictionary defines communication as "...a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior..."² This definition focuses on communication as an interactive process between at least two persons sharing ideas and thoughts. Similarly, Light's 1988 paradigm, which identifies four purposes of communicative interactions [needs/wants, information transfer, social closeness and social etiquette] has served us well in considering AAC intervention goals.³ However, communication between

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Another important purpose of human language is to communicate with ourselves (intrapersonal). Figure 1 (page 3) illustrates some distinctions between the use of speech/language for interpersonal communication (public/dyadic) and intrapersonal communication (private/self-directed). It also depicts the complexity and importance of intrapersonal communication, pointing out that it may be covert (inaudible) or overt (audible), and may be controlled (conscious) or uncontrolled (unconscious).

The field of AAC has largely ignored the roles of self-directed communication in the lives of people with complex communication needs.

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However, the literature in other fields (psychology, psychiatry, child development, self-help, art) actively discusses such constructs as inner speech, private speech, private language, monologues and self-talk. Table I lists terms used by various authors from multiple disciplines and illustrates the range of intrapersonal communication.

For the purpose of this newsletter, “interior dialogue” will refer to the types of self-directed communication that occur within our consciousness. This encompasses the left side of the diagram in Figure 1. Interior dialogue refers to those communication events that:

- (1) Use conventional natural language and communication forms with no interlocutor;
- (2) Involve language and other communication modes that are unspoken and therefore unobservable;

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know much about the nature of inner dialogues? Nope!

This issue is meant to encourage professionals in AAC to consider interior dialogue as an important function of communication, and, therefore, one that warrants our attention. For Consumers defines interior dialogue and draws attention to existing literature from other fields. Clinical News provides the view of a linguist (David P. Wilkins) about the nature of interior dialogue. University/Research describes two studies dealing with the “private speech” of individuals with Down syndrome. [Note: These are the only studies I found that investigated the role of interior dialogue in individuals with complex communication needs. Four Reflections (two on page 3 and two on page 8)

give us valuable insights into the nature of interior dialogue. The Equipment section begins to identify how AAC approaches may support communication with oneself. Finally, AAC-RERC focuses on Telework, an approach to employment that offers exciting options for individuals who rely on AAC.

My thanks to David P. Wilkins, Johana Schwartz and Tracy Rackensperger for their many important contributions to this issue. Sarah W. Blackstone, Ph.D., CCC-SP



Table I. Examples of intrapersonal communication terms⁴
(with David P. Wilkins and Tracy Rackensperger, 2005)

Terms	Characteristics	References
Self-talk	Positive thinking. Self-improvement. Influencing self image, performance, productivity.	Vocate (1994) Nurius & Majerus (1988) Kaufman & Raphael (1984)
Inner speech/ Private speech	Relationship of language to thought Developmental aspects (language development, imaginary friends) Self-awareness. Aspects of theory of mind.	Vygotsky, (1934/1986) Sokolov (1972) Brown (1976) Berger & Schuch (1981) DeWitt (1975) Jaynes (1986) Stamenov (2003)
Mental dialogue	Enhancing spirituality. Creating a world view Meditation	Progoff (1970)
Interior monologue	In writing, presenting a character's inner thoughts and emotions in a direct, sometimes disjointed or fragmentary manner	Dimond (1980; cited in Miller, 1991)
Inner conversations	Journal writing,. Self-parenting. Prayer. Diaries.	Popper & Eccles (1977)
Inner language Private language Interior language	Second language learning Dreams	Hoffman (1989)
Internal rhetoric	Persuading oneself. Justifying behavior. Making decisions	Nienkamp (2001)
Inner dialogue	Self awareness, self-actualization, insight Origin of consciousness	Kaufman & Raphael (1984) Simonov (1999)

- (3) Occur as the private sensations of individuals, with meanings that can be known only to the individual.

The time has come to acknowledge,

begin to understand and perhaps address important aspects of self-directed communication in the lives of individuals who rely on AAC. There are at least two good reasons to do so: (1) because interior dialogue is known to influence each individual’s behavior, relationships, language development, productivity, self-esteem, creativity, organization and self-actualization; and (2) because communication tools already exist, but are not necessarily being used, to support a variety of these functions (e.g., diaries, personal digital assistants (PDAs), daily planners, etc.).

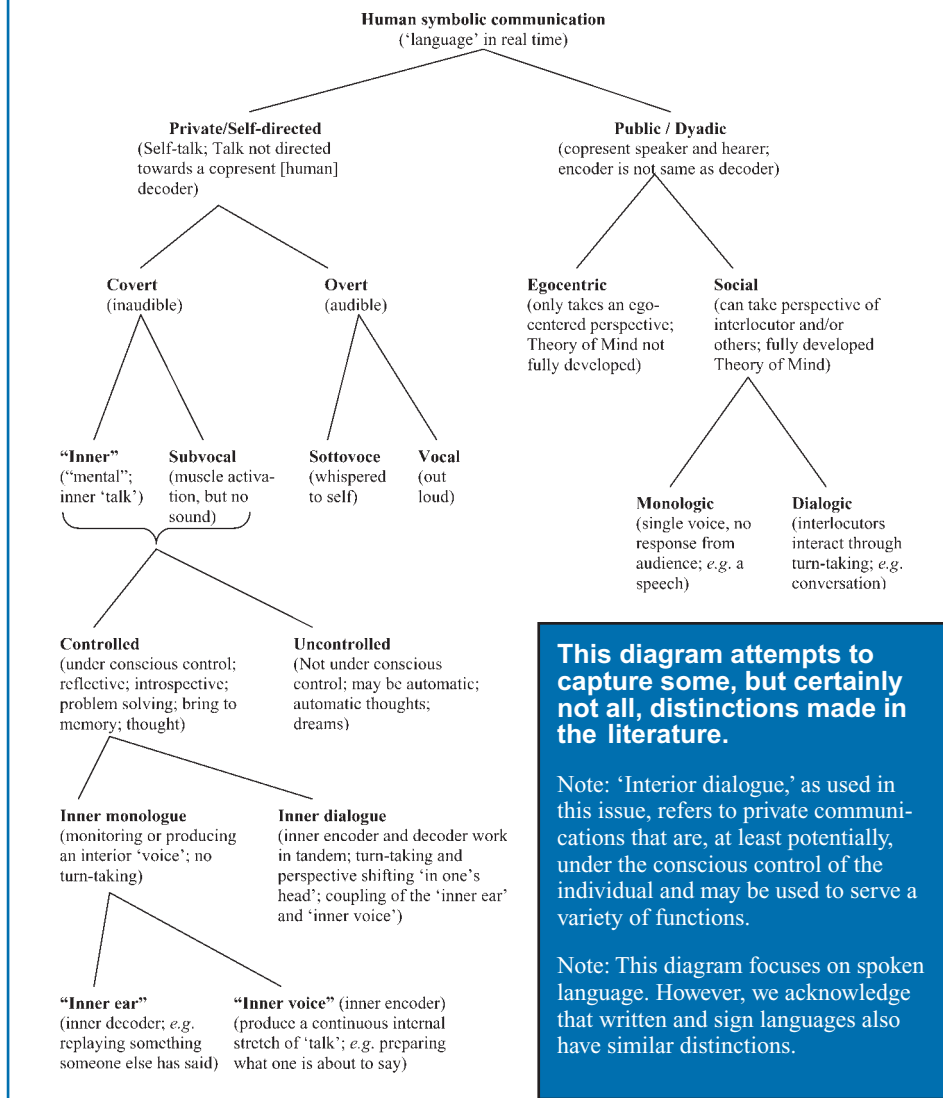
Next steps?

In the (soon to be published) Third Edition of the textbook, *Augmentative and Alternative Communication (AAC)*, Beukelman and Mirenda write

To Light’s list, we would add a fifth purpose—to communicate with oneself or conduct an internal dialogue.⁵

A first step for the field is to identify preliminary questions that may lead to a greater understanding of the role interior dialogue may play in the

Figure 1. Diagram of communication based on distinctions made in the literature on “inner language” David P. Wilkins, Ph.D. (December 2004).



Reflection #1

I know a number of people with disabilities, including myself, who not only hold internal dialogues, but do so with our own internal intelligent agents (IA), whom we may name and can visualize physically. For example, I use my IA to rehearse what I want to say to my actual communication partners. Even though I realize it is coming from me, I get a response from my IA to what I am saying/thinking that seems spontaneous. It is a substitute for having a conversation when another person isn't handy, which may happen more frequently for people with complex communication needs.

By Johana Schwartz, 2004

Reflection #2

My attempt at keeping a diary resulted in a negative experience that discouraged me from the practice for a long time. My fourth grade class had been assigned to write in a journal regularly. I had proposed to write my journal in a Word document on my computer. A rather abusive aide discovered that I'd been complaining about her in my journal. She actually “lost” (stole) my optical head pointer to prevent me from documenting my feelings about her. I was devastated.

Since then, I've elaborately stored memories in my mind, developing a keen ability to remember what happens each day of my life. I can amuse people by saying, “Did you know what happened on this date three years ago?”

My teachers and college counselors have emphasized the importance of keeping a journal for writing application essays. So I've kept one, in my head. I've also developed something of a photographic memory. I can't write long sequences (algebraic, URLs, street address) into my communication device, so I remember them precisely to reproduce later. Sometimes I may repeat them to myself throughout the day, other times I surprise myself at my memory.

By Johana Schwartz, 2004

lives of individuals who rely on AAC. The following questions come to mind:

1. Are some functions of interior dialogue different for individuals who have complex communication needs?
2. Do people who are unable to produce intelligible speech engage in interior dialogue more frequently? Less?
3. Do the characteristics of interior dialogue differ for different population groups?
4. Does interior dialogue serve wider or broader purposes for individuals who rely on AAC? Under what circumstances?

5. Are there specific AAC tools that support interior dialogue in children? Adults?

6. Are there ways to encourage the development of rich and productive interior dialogue in children with complex communication needs?

7. Is the “inner voice” people hear influenced by the device they use?

8. Being unable to speak affects the amount and nature of the feedback one receives during interactions. How does this affect the development of interior dialogue over time?

9. Do existing AAC tools, techniques and strategies encourage or discourage the development of interior dialogue?

10. What current design features in AAC technologies support different types of interior dialogue? What features are needed that are not currently available?



Clinical News



Inner Language: One linguist's perspective

David P. Wilkins, Ph.D.

I'd like to begin with a little experiment. Without the aid of pencil and paper or any other tools, I'd like you to divide 225 by 4 in your head. Once you've got an answer continue reading.

How did you come to the answer you got? That is to say, what was going on in your head (and body) as you tackled the problem? I've given this very same task to many people; and it's fascinating to watch as they go through the process of coming up with an answer. Invariably, they close their eyes at some point during the calculation. Later they report seeing numbers, symbols and operations in their head. Often it is as if they are working out the problem on an inner note pad. Some people make squiggle gestures in the air with their hands, or bob their head from one part of the problem to the other as if keeping track of where they are. Sometimes people move their heads slowly from side to side, as if shifting their attentional gaze with respect to some inner vision. There are people who talk out loud, whisper, or simply move their lips as they work through the problem. However, everyone, even people who are silent throughout the task, reports hearing themselves talk their way through the problem in their head. They also report chastising, self-correcting, or refocusing themselves as they strive to solve the problem.

What does such an example of focused internal problem solving tell

us? First, it emphasizes that the inner processes of self-communication are as multimodal and multifunctional as the external processes of face-to-face communication. There is a mix of auditory, visual, spatial and even motoric representations that are experienced internally. Furthermore, there can be an emotional and evaluative self-monitoring as we assess our progress. In other words, we do not simply hear sentences in our head, we also experience a wide range of other modalities and types of symbolic representation, of a sort that commonly accompanies language in everyday interaction.

When we talk, we regularly employ hand gestures, facial expression, gaze shifts, body postures, drawings and diagrams to aid our interactions. Thus, to understand inner language, we need to understand inner communication more broadly and explore its relationship to the external processes of interaction.

Social basis of communication

As different people report on how they go about dividing 225 by 4, it soon becomes clear that they each exhibit different problem-solving and representational practices, which they relate directly to personal social and cultural experiences involving learning to do division in school. That is, the internal practices these people are conscious of having employed appear to originate in particular external linguistic, motoric and graphic practices that are transmitted and reinforced by a teacher in a particular interactive social context. Some people even report hearing a particular teacher's voice in their head, or seeing a blackboard that they are writing on with chalk. In any case,

while the correct answer to the problem is the same for everyone, individuals solve the problem through quite different routes.

Each person's experience of "interior dialogues" is dependent on the language, or languages, he or she is exposed to. For example, if one's native language is a sign language, such as ASL, then the person's internal language is sign-based and one may experience seeing visual signs in the "mind's eye" and/or become aware of motor sensations in one's hands and body. Indeed, members of the Deaf community dream in sign, and some sleep-talk by moving their hands to form signs. In this sense, the conscious experience of our inner communication or interior dialogue is modality rich and based on our particular cultural and linguistic community.

Internalization

In the social-constructionist view of communication development, as initially proposed by Vygotsky,¹ and currently championed by such researchers as Tomasello^{6,7} and Rogoff,⁸ various "artifacts of the intellect" or "tools of thought" (*e.g.*, numbers, the schematic structure for doing division, *etc.*) are first encountered by a child as external practices in the context of social interaction in a particular cultural environment. Then, through familiarity and habituation (*e.g.*, doing a lot of written division problems in the classroom), the external practices gradually become internalized. This internalization process typically requires access to culturally-shared forms of symbolic representation and practice, language being major amongst these, and leads to a usable inner language. This process requires at least three distinct developmental and linguistically relevant factors.

1. Public symbols for private purposes. The internalization process requires that external forms of symbolic representation (*e.g.*, spoken words, signs or symbols relating to particular objects in a given context) develop into internal forms of symbolic representation (*e.g.*, internally manipulable symbols or words that refer to general categories or concepts). This gives us a way to manipulate information in a conscious fashion, with public symbols being used for private purposes.

Because the public symbols are also rooted in private experiences of environments and situations, they can be used to activate non-public information as well, and so help with the development of self-awareness and a socially-relevant self.

2. The interpersonal and the intrapersonal. The development of internalization also requires that interpersonal practices and the embodied actions that constitute them become intrapersonal practices and actions. As we have seen, social practices are enacted multimodally (not just linguistically) in context, and so it is not surprising that the various forms of internal practice that develop out of social practices maintain a multimodal nature. For instance, the way in which we encourage ourselves to keep going in the face of adversity typically takes on the same action form as the way in which others in our society encourage us to keep going. (For example, self-regulatory talk such as, “You can do this. Now concentrate!”) Similarly, the way we reprimand or insult ourselves is fashioned on the ways others have treated us negatively. When no one else is around, our interior dialogues may find us laughing at our own jokes, smiling when remembering a pleasant moment, pumping our fist in the air for our own achievement or giving ourselves a “dope-slap” on recognizing our own stupidity.

3. Moving beyond the egocentric. Finally, the internalization process requires a change in reasoning that is dependent on the ability to manipulate different perspectives. An egocentric perspective to problem-solving is replaced developmentally by the ability to switch perspectives and take on the perspective of the interlocutor, or some third person. This allows us to replay our own speech and see how someone else might have interpreted (or misinterpreted) what we said. It also allows us to work through different

sides and perspectives on a problem, or an argument, for ourselves.

Summary

The development of an inner language that one can use to engage in interior dialogue for a variety of purposes involves the ability to

1. manipulate internal symbolic representations that are based on the form of external representations,
2. execute intrapersonal practices that reflect the embodied actions of interpersonal practices and
3. utilize a form of reasoning that allows multiple perspective-taking far beyond the simple egocentric perspective.

There is, in fact, a constant dialectic between the external and the internal, between the public and the private. Self-reflection depends on active social participation; and successful social participation requires the ability to actively introspect. From this perspective, individuals are more likely to develop a rich internal life once they’ve been engaged in a wide body of social and cultural practices that involve a range of senses, modalities, and symbolic systems, and not just simply the generation of sentences in a language. Language use, not language structure, is the driving force in the construction of the internal environment of the self.

Questions & Answers

SB. *How might AAC professionals begin to address the interior dialogues of people who rely on AAC?*

DPW. Because this is a new area of study for AAC, we initially need pioneering descriptive work. This will be best done by first consulting proficient life-long AAC users and asking them for insights into their conscious interior life. Given a proper venue for discussion, sharing and questioning, individuals who rely on AAC can share

important information on such topics as:

1. whether or not their interior dialogue differs significantly from their external, interpersonal interactions;
2. whether their AAC devices or strategies play any role in their internal communication and, if so, in what contexts and to what ends;
3. whether or not they have strong visual, auditory or other sensory strategies.

If enough people are consulted, we may begin to see patterns relating to different disability areas and/or AAC device types and AAC strategies. This would provide a solid beginning for further study and research.

SB. *What should parents and professionals be particularly conscious about regarding the development of interior dialogue in children who have complex communication needs?*


DPW. Parents and AAC professionals who support young children have to be aware that the choices they make for communication intervention will also have an effect, for better or worse, on the development of a child’s interior dialogue and self-conscious awareness. To paraphrase Vygotsky, the communication structures mastered by the child, which are not only linguistic, become the basic structures of his or her thinking.

Recent psycholinguistic research has indicated that spoken language, in the narrow sense of word and sentence structures, is only useful for a restricted set of communicative and cognitive functions, *i.e.*, for providing a cultural categorization of the world (*dog, cat, spoon, brother*) and for expressing typical relations between categories (*Dogs and cats*

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are animals). However, relative to visual means of communication like diagramming and gesturing, spoken language is particularly inefficient for spatial and imagistic reasoning. Similarly, communication and reasoning in the emotional and social domains is more efficiently served by the use of facial expression, gaze, body space and non-speech vocalization and intonation.

There is no single AAC tool or intervention that can fully serve the development of a child's interior dialogue, just as there is no single magic device or AAC approach that can serve a child's interactive communication. To avoid neglecting, or even interfering with the development of all communication domains, including interior dialogue, parents and professionals should engage children in a wide range of social and communicative practices, rather than concentrate narrowly on the production of language structures or specific AAC approaches. 

University & Research




Private speech and Down syndrome

Individuals with Down syndrome often have articulation, language and cognitive problems that interfere with communication, and many benefit from AAC technologies and strategies. The following two studies investigated the use of private speech in adolescents and adults with Down syndrome.

Young people. In a study of 78 young people with Down syndrome in the U.K., age 17 to 24 years, Glenn and Cunningham concluded that the “self-talk” or “private speech” widely observed in individuals with Down syndrome is *not* indicative of pathology.⁹ Ninety-one percent of the group engaged in private speech, *i.e.*, talking to objects, self-dialoguing, giving themselves directions, describing their activities and muttering. Researchers found no correlation between the young people's private

speech and any behavior problems, communication difficulties or social isolation. They concluded that the

private speech was developmentally appropriate and adaptive.

Adults. When investigating the use of private speech in 500 adults with Down syndrome, Chicoine, McGuire and Greenbaum reported that 81 percent of adults (median age = 34) at the Adult Down Syndrome Center of Lutheran General Hospital in Illinois were noted to use private speech.¹⁰ The amount often reflected the emotional intensity of the individual's daily life. They reported that private speech did not signal a psychosis or mental disorder but cautioned that a dramatic shift in the amount of an individual's self-talk might signify a situational or mental health problem. The researchers observed that the functions of self-talk in adults with Down syndrome were to problem solve, vent feelings, entertain themselves and process the events of their daily lives. 

Equipment



paramount when recommending tools and strategies to enable individuals to engage in interior dialogue for purposes that may include (see

Table II):

- 1. Regulating emotions using visual supports or self-talk.** Dealing with excitement, anxiety, emotional upheaval, confusion, *etc.* Over time, people may learn to internalize the use of these strategies.
- 2. Rehearsing something that may (or may not) be said later.** Preparing in advance for a lecture or presentation. Pretending to talk with someone before the conversation actually occurs, *etc.*

Tools for augmenting interior dialogue with Tracy Rackensperger, AAC-RERC Writers Brigade

Just as a range of tools, techniques and strategies exist to help augment interpersonal communication, there are both AAC and mainstream technologies and strategies that can support interior dialogue. Communicating with oneself is meant to be private, so privacy issues must be

Table II. Interior dialogue tools

Functions	Some AAC examples
Emotional regulation	Feelings Book; Emotion wheel; Social Stories; Daily/weekly schedules.
Rehearsal	Stored messages on a device or prepared in a communication book/board. Using a device/board to practice without an interlocutor.
Self-reflection	Accessible diaries, journals, paper and pencil with privacy protection/encryption.
Creativity	Accessible drawing, painting, music, drama, creative writing, <i>etc.</i> opportunities with appropriate materials.
Practice/mastery	Depends on what someone wants to learn, <i>e.g.</i> , computer with appropriate software, AAC device, accessible chess set, <i>etc.</i> For example, may include strategies to teach visualization techniques.
Self-organizing/memory	Typically, ways to make lists, check schedules, plan. AAC devices may have alarm clocks or other memory aids (<i>e.g.</i> , accessible daily/weekly planners, PDAs).
Self-actualization	Opportunities to read/explore a range of processes offered through art, cultural and spiritual activities.

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AAC-RERC



SPREAD THE WORD

Telework to improve employment outcomes

Tom Younkerman, AAC-RERC Writers Brigade

The typical dream of young people is to work, own a home, raise a family and feel successful. People who use AAC have the same dreams, but only a small percentage of them become employed. In an effort to increase employment opportunities for this population, the AAC-RERC has undertaken a research project to identify vocational supports for people who use AAC. One innovative approach to employment is the use of telework. Telework can be defined as working outside the office via a computer with Internet access. For many, working from home can mean the difference between sitting at home doing nothing and being employed, productive and feeling useful.

David McNaughton, an AAC-RERC partner at Pennsylvania State University, is the principal investigator of the Telework Project. Tracy Rackensperger, an individual who uses AAC, serves as a co-investigator. The research has three main objectives:¹¹

§ Identify key supports and barriers to telework for employees who use AAC.

§ Develop, implement and evaluate the effectiveness of a model telework demonstration project, in conjunction with industry and government partners.

§ Investigate the impact of web-based resource materials on the willingness of employers to hire individuals who use AAC.

Phase I. The first phase of the research is under way and consists of recruiting a focus group from

AAC communities, such as the ACOLUG listserv. Focus group participants meet the following criteria:

(1) They have cerebral palsy; (2) their speech is inadequate to meet their oral communication needs; (3) they use AAC techniques; (4) they have been employed a minimum of ten hours a week for at least six months; and (5) they work from home at least ten hours per week and communicate with their office/employer using email, instant messaging or the telephone.

Phase II. In the second phase of the project, researchers will work with six individuals who use AAC and assist them in obtaining telework employment. As part of this project, researchers will work with employers to develop successful telework employment strategies for individuals who use AAC.

Phase III. In Phase three, researchers will develop web-based resources for employers to encourage them to hire employees who use AAC to do telework. Project staff will make these resources available on the Internet and evaluate their impact on employers.

At present, a small but important number of individuals who use AAC are successfully employed in part because of the benefits of telework. Telework may increase the numbers of people employed who have severe speech and mobility impairments. The project staff plans to investigate the advantages and disadvantages of telework and then develop resources to encourage employers to take advantage of telework options.

Advantages of telework

The potential advantages of telework are many. Consider Johana Schwartz. Schwartz, who works 16 hours a week managing the Writers Brigade for the AAC-RERC, says that she values the flexibility of telework, "I like naming my own

hours and being able to keep regular medical appointments without missing work."¹²

Joel Smith, an individual who uses AAC and makes use of telework, notes, "I have fewer interruptions and I am more focused working from home."¹³

Telework tools can make communication easier. Employees can use email or instant messaging to communicate with colleagues. As one teleworker says, "Emailing individuals is easier because they don't have to wait around for me to type messages." Though I go into the office, the majority of my communication is through email. I use email to ask questions and to report the work that I have finished. Corresponding with my supervisor via email saves both of us time. I commute three times a week to work by bus, but if the weather is bad, it is reassuring to know that I can telework from home.

Disadvantages of telework

McNaughton and Rackensperger also plan to investigate the disadvantages telework may present. Some negative aspects may include feeling isolated from co-workers, fewer face-to-face social interactions, keeping track of hours worked and staying focused. Employers also may be leery of equipment costs or liability concerns.

Summary

The AAC-RERC Telework Project promises to open up exciting new options and opportunities in employment for individuals who rely on AAC. Stay tuned.

The AAC-RERC section is partially funded by the National Institute on Disability and Rehabilitation Research (NIDRR) under Grant #H133E030018. The opinions herein are those of the grantee and do not necessarily reflect those of the U.S. Department of Education.

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3. Engaging in self-reflection.

Thinking or writing about one's experiences and their impact. May involve keeping a journal or a diary that focuses on feelings. Privacy is a major issue.


4. Creating art, music, poetry, drama.

Can be a form of self-expression, self-actualization and/or an entertaining leisure activity.

5. Practicing and mastery.

Often related to an effort to learn or master something new or difficult. May involve repetition, writing things down, visualization, going over things in one's mind.

6. Self-organizing. Relates to one's ability to "get things done." Often is aided by tools that enhance memory, provide reminders, calendars, PDAs.

7. Self-actualizing. May refer to a variety of processes (spiritual, religious, cognitive, emotional) that enable individuals to feel they are reaching harmony, acceptance of self and others. 

Resources

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³ Light, J. (1988). Interaction involving individuals using augmentative and alternative communication systems: State of the art and future directions. *Augmentative and Alternative Communication*. 2, 66-82.

⁴ These references are available at www.augcominc.com. Click on *Augmentative Communication News*. Select **References for Interior Dialogue** (2004), 16:4.

⁵ Beukelman, D.R. and Mirenda, P. (in press) *Augmentative and Alternative Communication*. Third Edition. Baltimore: Paul R. Brookes Publishing.

⁶ Tomasello, M. (1999). *The Cultural Origins of Human Cognition*. Harvard University Press.

Reflection #3

In 1959, at the age of 13, Eva Hoffman emigrated with her family from Poland to Canada. In this excerpt, Hoffman describes the destabilizing effects of switching languages, social practices and cultural contexts. She reflects on how the changes affected her flow of inner language, and thereby her developing sense of self.

The worst losses come at night. As I lie down in a strange bed in a strange house ... I wait for that spontaneous flow of inner language which used to be my night time talk with myself, my way of informing the ego where the id has been. Nothing comes. Polish, in a short time, has atrophied ... Its words don't apply to my new experiences; they're not coeval with any of the objects, or faces, or the very air I breathe in the daytime. In English, words have not penetrated to those layers of my psyche from which a private conversation could proceed. This interval before sleep used to be the time when my mind became both receptive and alert, when images and words rose up to consciousness, reiterating what had happened during the day... spinning out the thread of my personal story. ... Now this picture-and-word show is gone; the thread has been snapped. I have no interior language, and without it, interior images - those images through which we assimilate the external world, through which we take it in, love it, make it our own - become blurred too.

From Hoffman, Eva (1989). *Lost in Translation: A Life in a New Language*. New York: Penguin Books.

⁷ Tomasello, M. (1992). The social bases of language acquisition. *Social Development*, 1 (1), 67-87]


⁸ Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. NY: Oxford University Press

⁹ Glenn, S.M. & Cunningham, C.C. (2000). Self-talk in adults with Down syndrome. *Mental Retardation*. 38 (5):498-505.

¹⁰ Chicoine, D., McGuire B.A. & Greenbaum, E. (2001). Parents' reports of young people with Down syndrome talking out loud to themselves. *Disabilities Solutions*. 2:2. www.disabilitysolutions.org/pdf/2-2.pdf

¹¹ For additional information, contact David McNaughton or check for updates. dbm2@psu.edu

¹² Johana Schwartz. (October 9, 2004). Personal communication.

¹³ Joel Smith (September 13, 2004). Personal communication. 

Reflection #4

I find I talk to myself a lot. I mainly engage in this activity when planning a response to someone, reading or relieving stress. Interior dialogue is especially helpful for the latter. When I am in highly stressful situations, I say the most socially inappropriate things to myself to relieve tension. It works and no one is the wiser.

Someone asked me once, "Who do you hear when you talk to yourself?" She was curious to see what voice an individual whose speech is unintelligible to many hears when she is participating in self-communication. The answer was then, and still is today, "I don't know." However, what I do know is I definitely do not hear DecTalk!

By Tracy Rackensperger, 2004



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