

Communicative Competence and Self-Determination

Sonya Spolsky

University of Arizona

Gina DeBarthe

University of Kansas

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Self-determination describes people acting as the primary causal agents in their lives through their own volition (Wehmeyer, 1998; Wehmeyer, 2005). Volition means making choices with intention and consciousness. Self-determination consists of four essential characteristics related to volition: Autonomy, self-regulation, psychological empowerment, and self realization (Wehmeyer et al., 2007). Acting autonomously, in a manner to achieve specified goals, problem solving to meet those goals and being aware of the possible outcomes describe some of the activities related to volition and the characteristic of self determination (Light & Gullens, 2000; Wehmeyer et al., 2007). Self-determined people influence their own lives. People with physical and cognitive impairments need supports to act volitionally, and to act as causal agents in their own lives, where causal agent refers to the individual behaving in a specific ways to influence events in their environment, activities and other people (Light, 1997; Light & Gullens, 2000).

Communication

People interact with friends and loved ones using a variety of communication modalities; including, speech, verbalizations, gestures, facial expressions, text-messaging, e-mail and many other modalities (Light, 1997). No individual is completely autonomous every moment of every day, but interdependence and interactions occur throughout the day (Brown, Gothelf, Guess, & Lehr, 1998). Communication lies at the center of the everyday interactions of people. Many individuals with physical and cognitive impairments require support for communication. Communication contributes to increased self-determination (Beukelman & Mirenda, 2005; Brown, Gothelf, Guess, & Lehr, 1998, Light, 1997). People communicate with peers, family members, and others in the community about their desires, needs, and decisions. Communicative competency supports self-determination (Light & Gullens, 2000). For example, George lacked

a communication system reliable enough to enable him to articulate his desires in his own care and living arrangements. After an evaluation at a speech language and hearing clinic, an Alternative and Augmentative Communication (AAC) device was purchased. George went to his lawyer and used his device to change his living arrangements. He knew what wanted, but needed the support of the AAC device to communicate his message effectively. After gaining the AAC support, he was able to act as the primary casual agent in his life.

Communicative Competence

Communicative competence requires individuals to use language within a rule based system, in the correct context, and with communicative intent. Communicative competence includes not only communicative intent, but the overall effectiveness of communicating with another person. Four areas of communicative competence include: linguistic, sociolinguistic, discourse and strategic competence (Light, 1997). Communication fosters relationships with others, embedding social etiquette and expectations in an interaction between two people. Communication competence considers the intent of the message, the purpose, and whether the communication partner interpreted the message correctly. Communicating effectively requires an effective exchange of ideas and information.

Due to developmental and acquired language delays and impairments, many people with disabilities require an alternate way to communicate. People with disabilities may have limited speech, highly unintelligible speech or no speech. Many times people with disabilities use an Alternative and Augmentative Communication system (AAC) to replace or augment speech. AAC is an “integrated group of components, including symbols, aids strategies and techniques used by individuals to enhance communication (Beukelman & Mirenda, 2005). The types of

AAC vary. The features of AAC systems support the communication needs of a person using the AAC system.

AAC systems include aided systems and unaided systems. Aided systems use items such as computers, speech generating devices, or other tools to enhance or replace speech. Unaided AAC systems use no technology, gestures or signs are examples of unaided AAC systems (Beukelman & Mirenda, 2005; Hill, 2010). Individual AAC users typically utilize both types of AAC, aided and unaided. Multiple systems support communication across a variety of environments and with a variety of communication partners (Beukelman & Mirenda, 2005; Hill, 2010).

Barriers to AAC use

One of the major barriers faced by families of individuals with complex communication needs revolves around the belief an AAC system will prevent their family member from speaking and an AAC system delays language development. Professionals and family members believing an AAC system will hinder language and speech development may not recommend an AAC system (Beukelman & Mirenda, 2005; Ronski & Sevick, 2005). Quite the opposite occurs. In fact, 89% of AAC users show gains in speech development after using an AAC system (Ronski & Sevick, 2005).

A person with a disability who uses an AAC system needs instruction on how to use the AAC system. The ability to access the system either hinders or supports development of language and communication. In order to learn Spanish, the teacher would model and provide instruction on the Spanish language. Similar instruction for AAC systems supports individuals using the AAC systems for communication. Yet, many professionals feel uncomfortable using an AAC system and cannot provide instruction for the beginning AAC user. Professionals may

even refuse to use the AAC system hindering the individual's ability to communicate.

Individuals with complex communication needs require instruction and modeling of the AAC system to further develop communication and language skills. (Beukelman & Mirenda; Light, 1998)

AAC users

AAC users and family members identified priorities for AAC and communication. Barriers to AAC use influenced some of the priorities. The priorities identified included access to appropriate technology, instruction for family members, professionals and the AAC user on operation of the AAC system, ongoing support, and education of the community about AAC (Higgenbotham, 2008; Light, 1997; McNaughten, 2008). Individuals with complex communication needs often lack needed support. Many times an AAC system chosen reflects the needs of the service provider and not the needs of the individual (Higgenbotham, 2008; Light, 1997; McNaughten, 2008).

AAC assessment and choice should be consumer driven. AAC system selection needs to include the individual and their family members. Choosing the AAC system encourages self-determination by enabling students to pick their "voice" (Williams, et al., 2008; Sigafoos et al, 2005). Choice supports ownership of the AAC system. An active role in picking an AAC system encourages an individual to use the AAC system.

Communication promotes self-determination. A correlation exists between self-determination and communication. Individuals with complex communication require access to AAC. They require access to multiple modalities of communication including multiple AAC SGD's, training in sign language, and low-technology options such as communication boards

(McNaughten, 2008; Williams, et al., 2008). Without a means to communicate individuals encounter difficulty developing skills needed to increase self-determination.

Language Development and American Sign Language: Deaf Children of Hearing Parents

An estimated 90% of DHH people are born to hearing parents fluent in at least one spoken language. Limited parental exposure to American Sign Language (ASL) impacts the ability of children who are DHH to use ASL. As a result, children who are DHH often lack a variety of incidental learning opportunities because they lack a common language with their parents (Hauser, O'Hearn, McKee, Steider, & Thew (2009); Corina & Singleton (2009); Hauser, Lukomski, & Hillman (2008). Hearing parents tend to only communicate with their deaf child using speech and only discuss topics in the present (Rapin, 1986). DHH children cannot access their hearing parents' conversations and discussions, because information cannot be processed auditorily. Lack of exposure to language inhibits language development (Cross, Johnson-Morris, & Nienhuys, 1980; Nienhuys, Horsborough & Cross, 1985; Spencer, 1991).

Deaf children with hearing parents often begin the school years with incomplete and underdeveloped language skills. Language skills lag behind peers due to the insufficient language input in the home environment. Deaf children with hearing parents do not have a natural route to sign language; therefore communicative competence suffers (Lukaszewicz, 1999; Tomaszewski, 2001). DHH individuals may then demonstrate difficulties with social communication (pragmatics) due to their limited exposure to language and decreased communicative competence. Poor pragmatics effects social skills and places DHH at risk for lower levels of self-esteem and social isolation (Toe, Beattie, & Barr, 2007). DHH youth of hearing parents may be limited in the development of self-determination and less able to engage in problem solving, action planning, goal setting, and self regulated learning due to reduced

linguistic and communicative competence resulting from delayed or impoverished language (Toe, Beattie, & Barr, 2007).

Deafness and Incidental Learning

Incidental learning often takes place outside of the formal curriculum and instructional process. Incidental learning consists of knowledge gained in a naturalistic environment. People without a hearing loss access a variety of (primarily auditory) environmental information processed from casual conversations, TV, radio, and other environmental sources. Eighty percent of world knowledge results from incidental learning (Luckner, 2011). World knowledge consists of exposure to and interaction with various environments and persons in the community and experience with reasoning, inductive reasoning, metacognitive awareness development, and the ability to elaborate, connect, and reflect in order to make connections between a person's personal experiences and what is happening in the surrounding world. Deaf people do not have access to incidental learning on the same level as hearing people (Luckner, 2011). The lack of incidental learning results in gaps in general knowledge; most hearing people take for granted. As Luckner (2011) documents, hearing loss of any type or degree can present a barrier to incidental learning in the following areas:

- 90% of the knowledge acquired by a young child is learned incidentally
- a hearing loss prevents overhearing and learning from the environment
- children with a hearing loss often miss social clues and cues
- children with a loss cannot listen and learn— missing 10% or more of classroom instruction.

Deaf children encounter fewer opportunities for incidental learning as a consequence of their hearing loss (Luckner, 2011). Deaf youngsters lack access to many sources of information

(e.g., radio, conversations around the dinner table) and their incidental learning may suffer from lack of opportunity. Furth (1966) and Rapin (1986), suggested DHH children's poor performance in reasoning tasks and educational assessments are attributed to *information deprivation* (Rapin, 1986). Consequently some concepts hearing children learn incidentally in everyday life must be explicitly taught to DHH students in school (Nunez & Moreno, 2002). Any communication interactions for a DHH child reduced in number and in quality can result in delayed language skills and world knowledge hindering literacy and academic skill development.

Deaf Children of Deaf Parents

Deaf parents whose native language is ASL communicate with their deaf child through sign language. Deaf parents respond to their child's developing language appropriately, and to adjust linguistic forms – manual words and sentences – to meet the language level of the deaf child effectively. Deaf children learn ASL from their deaf parents in a systematic and progressive way just as hearing children learn spoken language from their hearing parents (Tomaszewski, 2001). Language development milestones for deaf children, exposed to ASL from birth, mirror language development of hearing children who are exposed to a spoken language from birth. Young deaf and hearing children raised in a signing environment have vocabularies equal to or larger than children who only use spoken language (McEwan & Lloyd, 1990). Deaf parents use sign language to communicate efficiently, accurately, and competently with their deaf child assisting in language growth and development (Marschark, 2003). DHH children in a language rich environment develop communicative competence and develop language as peers who speak English (Meadow, 2005).

Bilingualism: English and ASL

A majority of deaf individuals are bilingual because they use ASL for face-to-face interactions with other DHH individuals and/or hearing individuals who know sign language and English in written and/or spoken form when interacting with hearing non-signers. DHH individuals who use sign language often use written language as a strategy to communicate with hearing individuals unable to use sign language (Tucker Cohen, Allgood, Wolff Heller, & Castelle, 2001). Thus, DHH individuals often use two languages, one for interacting with non-signers, and another language for use with people who do know sign language. The ability to adapt to communication partners can contribute to more successful communication experiences.

Utilization of various modes of communication increases levels of self-determination with deaf individuals. Communication flexibility and versatility are crucial skills to developing self-determined behavior. Lukaszewicz (1999) found that DHH children in a bilingual education placement repaired communication breakdowns when communicating with hearing peers who did not know sign language. DHH children realized their signed interactions with hearing peers were unsuccessful and revised their messages by making a shift from sign language to a more gestural language (Lukaszewicz, 1999). DHH people who develop bicultural skills navigate both the hearing and deaf worlds gaining employment and professional success in the hearing world while maintaining a cultural and linguistic identity. Communicative competence, in two languages and the ability to self-advocate may result in more self-determined behaviors. Communication failures for DHH individuals lacking communication repair strategies, lead to a feeling of deficiency and ultimately lead to depression and lower levels of self-esteem and self-determination (Jambour & Elliott, 2005).

Self-Determination and Deaf Communities

As noted previously, DHH individuals need a repertoire of strategies to ensure a more successful interaction with hearing persons who do not know sign language. A variety of strategies can enhance communication competence and self-determination. Strategies such as repetition, writing back and forth on paper, and using gestures are all strategies a DHH person can use to facilitate a successful interaction (Foster, 1998). DHH individuals with higher self-determination persist despite communication failures, changing their language and communication to meet the linguistic demands of the communication partner. If needed, DHH people with higher self-determination might ask for and use a communication facilitator, such as an interpreter. DHH individuals who have lower levels of communication competence and self-determination may abandon or give up challenging or unsuccessful conversations and might feel dejected and helpless and as a result, may be less self-determined.

DHH individuals who use communication strategies to promote effective interactions with hearing people might also be increasing their self-determination while decreasing frustrating social interactions. Use of communication repair strategies can allow DHH individuals to feel less social rejection, isolation, and might help break down negative assumptions and stereotypes hearing people often hold about DHH people. Increased communicative competence might assist in the development of self-determination and could encourage involvement in the local hearing community.

Self-determination is an international social construct with roots across the globe. Individuals in the DHH community in Nicaragua increased their presence in local and national politics in the country lobbying for the rights of DHH persons. (Senghas, Senghas, & Pyers, 1995). By self-advocating and demanding recognition on the political level, the deaf community

in Nicaragua show that DHH communities can be self-determined and communicate their needs and wants with clarity and lucidity. Additionally, the Māori DHH population in New Zealand has learned to gather together to support one another and to encourage members of their community to take leadership roles and to teach other members about their cultural awareness (Smiler & McKee, 2007). Self-advocacy and ability to communicate to others the value of contributions from DHH people shows how effective communication increases self-determination. Individuals learn to advocate for themselves and others, further defining and developing their self-determination (Smiler & McKee, 2007).

Barriers for DHH individuals to Self-Determination

Several barriers to self-determination exist in the communicative competence context. These barriers include: (a) attitudes, (b) limited choices, and (c) lack of experiences (Adams, 1993). The negative views and attitudes hearing individuals may hold against DHH people produce negative ramifications for deaf and hearing persons (Foster & MacLeod, 2003). DHH individuals need the ability and opportunity to exercise self-determined behavior and reduce the number of negative views of DHH persons by hearing individuals through successful communication exchanges. Hearing persons need to gain knowledge and skills in order to interact with DHH individuals equally. Rather than simply assuming a communication partner who is DHH must use spoken language to meet the communication needs of their hearing communication partner.

Many barriers exist for deaf individuals, such as the physical environment, lack of knowledge about individuals who are deaf, and the limited success encountered when using a sign language interpreter. Barriers contribute to negative communication interactions between deaf and hearing individuals (Foster & MacLeod, 2003). Self-determined, problem solving

strategies can help to alleviate the negativity and frustrations. There are six strategies deaf individuals can use to potentially increase their levels of self-determination by facilitating effective communication strategies when interacting with hearing individuals, particularly in the work environment (Foster & MacLeod, 2003):

1. Learning to be flexible. Seldom do single approaches to interactions and communication result in success in all conditions and in all settings. Effective communicators, use a wide repertoire of modes and strategies to increase the likelihood of an interaction being successful.
2. Taking control of communication interactions and making the environment favorable for successful communication interactions. In order to experience success in communicating with others, an individual needs knowledge of various strategies and communication methods to find success.
3. Accepting and undertaking a role of power or authority in the workplace. When an individual is in a position of power or authority, other workers will be obliged to interact with deaf individuals, necessitating the need to communicate and communicate effectively.
4. Teaching hearing people about deafness and deaf culture. An important factor in increasing the likelihood of successful communication with hearing individuals is to educate others about deafness, communication needs with a deaf person, and deaf culture. Educating other people requires DHH individuals to develop self-awareness, self-advocacy skills, and self-determination. By doing so, deaf individuals are self-advocating creating the most optimal communication environment.

5. Assembling supportive and understanding people in the workplace. Building a support network entails developing the interpersonal skills to create connections and friendships with supportive colleagues willing to share information and inform a deaf co-worker about important events in the work setting. DHH can also establish similar support systems in their school and home environment.
6. Establishing a balance and assessing situations involving communication with hearing people. DHH can take the initiative to ensure interactions have a greater likelihood of being successful, such as requesting a sign language interpreter.

Whether communication interactions are successful, could highly affect one's level of self-determination in all settings and environments. DHH individuals with a large variety of communication strategies and self-awareness are more self-determined and less likely to give up when interactions become difficult. The improvement of communication skills in various contexts and situations has the potential to prevent mental health problems in adults who are deaf (De Graaf, & Bijl, 2002). Both hearing and DHH persons need to increase levels of self-determination and be willing to interact, even if the interaction is challenging (Foster, 1998).

Recommendations for DHH

Despite the prominence in the field of special education of promoting self-determination, little is known about the extent to which DHH individuals have the knowledge, skills and approaches that could improve their capacity to be self-determined individuals. There is a need to support DHH youth with the skills, knowledge, and opportunities using empirical research findings identifying the need to foster self-determination skills, goal attainment, and self-regulated learning. Future research studies can inform educators and professionals about areas in which instructional and curricular foci may be required, as well as, help researchers identify

important areas and aspects in which to design and implement interventions centered on the elements of self-determination for DHH students.

Furthermore, a need for empirically based interventions to increase communicative competence, cultural competence, goal attainment, and self-determination are needed for professionals to use with DHH individuals of all ages and abilities. Interventions are also needed for deaf and hearing parents of DHH children to help parents gain knowledge in facilitating more effective and constructive communication and interactions which will in turn positively affect self-determination. Providing as many opportunities as possible for parents of DHH children to learn sign language at minimal to no cost. Parents can be encouraged to expose their DHH children to deaf adults, the deaf community, and deaf culture; helping parents to understand their DHH child experiences and needs. Knowledge of Deaf culture empower parents to become advocates for their child and helps parents teach their children how to self-advocate and be a self-determined individual.

More research is needed to examine multiple gaps in the self-determination literature related to DHH students. DHH children grow up to become DHH adults and the need for instruction in the component parts of self-determination is necessary, including the need for DHH students who use ASL to be taught effective communication skills to foster communicative competence and to increase problem-solving and self-regulation skills. Self-determination is a social construct. Building communicative competence and self-determination are vital to DHH individuals. Additionally, DHH people need to learn to self-advocate through learning which accommodations and modifications best meet their social, academic, and professional needs, setting goals, and expressing needs, wants, and desires appropriately (Luckner, 2011). Families and DHH individuals need to focus individual capacities rather than focusing on negatives.

Supporting Communication and Language

Communication supports self-determination. For individuals who communicate using non-verbal means such as AAC or ASL the ability to communicate with others presents a unique challenge. Many individuals in the community lack familiarity with individuals who use AAC or ASL. In order for communities to include all styles of communication members of the community need to be aware of how they can support individuals who are DHH and AAC users (Beukelman & Mirenda 2005; Foster & MacLeod, 2003). Information provided to the public emphasizes the importance of communication for DHH individuals and AAC users. The information provided facilitates communication for all parties involved.

Environmental adaptations help enhance communication. Environmental adaptations include phone services for DHH individuals or AAC users, so ASL or the AAC system work in conjunction with existing technology. Visual displays with symbols rather than simply words assist communication across modalities and also assist other members of the community by increasing accessibility for everyone (Beukelman & Mirenda, 2005). In general adaptations to the environment help everyone in the community. Adapting to multi-modal communication provides a similar opportunity (Williams, et al., 2008).

An important part of supporting a person's self-determination is the ability and the willingness of the communication partner to be flexible in their communication styles. Furthermore, all communication interactions are collaborations between two or more individuals and effective communication is highly dependent on active engagement in collaboration and clarification (Olney, 2001). The communication partner in an exchange must look at interactions with a new perspective incorporating the other person's communication style and taking their perspective (Olney, 2001). Working to develop communicative competence in all individuals,

including individuals who are DHH or AAC users is a worthwhile investment and endeavor with a twofold return: increased skill in communication effectiveness and increased self-determination.

Communication and Self-Determination

Competent communicators interact with others to achieve specific goals. Achieving goals requires planning. As noted previously, communicative competence and self-determination develop over time through instruction and life experiences. Developing communicative competence and self-determination requires practice and opportunity to interact with others, chances to solve problems and make decisions (Light & Gulens, 2000). Communication forms a fundamental base for self-determination (Mallette et al., 1992; Light, 1997). Individuals communicate through connections with others.

Self-determination involves communicating personal preferences. Personal preferences include wants, desires, needs and opinions. Expressing desires and needs to other people is an expression of self-determination. Many times therapists, teachers and families assist emergent communicators by providing initial vocabulary to express wants and needs (Buekleman & Miranda, 2005; Light, 1997). Initially identifying wants and needs demonstrates the power of communication and encourages development of self-determination. A basis for communication forms and allows the individual to volitionally effect their environment and foster relationships.

Communication supports self determination by building relationships among people with disabilities, their families, and friends. Through interactions with others, a person develops a support system. The support system enables the realization of dreams and goal attainment by providing encouragement and acting as a resource for the individual (Light, 1998). DHH and AAC users demonstrate communicative competence developing connections and relationships

with a wide variety of individuals. Additionally, building social networks supports goal attainment and self-determination (Beukelman & Mirenda, 2005; Light, 1997; Meadow, 2005).

People with high communicative competence exercise self-determination when interacting with people in their community by using effective communication strategies to promote positive interactions. Effective communication includes pragmatics. Pragmatics consists of social etiquette and awareness of communication breakdowns (Beukelman & Mirenda, 2005; Light, 1997). ASL and AAC users must be able to recognize breakdowns in communication, in order to repair communication (Beukelman & Mirenda, 2005; Light, 1997). Self-determination requires individuals to communicate a message to communication partners in order to accomplish personal goals and participate as causal agents in their lives (Light & Gulens, 2000).

Significant correlations exist between communication and self-determination (National Longitudinal Transition Study 2, 2003). Competent communication resulted in increased autonomy and psychological empowerment. Researchers from the National Longitudinal Transition Study -2 (NLTS2) investigated self-determination among 16- to 18-year-old youth with disabilities using items selected from The Arc's Self-Determination Scale (Wehmeyer & Kelchner, 1995). Youth who displayed competent communication scored higher on personal autonomy scores compared with youth with decreased communicative competence. (54% vs. 44%). Youth who were competent communicators scored in the high range of psychological empowerment, compared with youth who had trouble communicating (84% vs. 73%) (National Longitudinal Transition Study 2, 2003). Individuals who communicate effectively display increased autonomy and psychological empowerment. Autonomy and psychological empowerment contribute to increased self-determination.

Language and communication interweave themselves into everyday life. With or without verbalization people communicate. For communication success both parties must work towards understanding in an environment supportive of all forms of language and communication. Support of a variety of modalities encourages inclusion and self-determination for all individuals. Individuals need to communicate. Human beings are social creatures. We rely on one another in everyday interactions communicating our needs, opinions, joys, and sorrows. Through communication we connect with others, express our innermost thoughts and have an impact on our lives and the lives of others. Through communication we enact change and develop self-determination.

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Appendix

Table 1: Communicative Competencies

Linguistic competence	The correct use the grammar, syntax, and vocabulary of a language. Linguistic competence consists of an individual choosing certain words to use in a conversation, organizing the words using the rule-based structure of a language system.
Sociolinguistic competence	Communication using language appropriately, given the setting, the topic, and the relationships with communication partners. Social pragmatics including courtesy, authority, friendliness, and respect.
Discourse competence	How to interpret the larger context and how to construct longer stretches of language so that the parts make up a coherent whole.
Strategic competence	Recognizing and repairing communication breakdowns, including gaps in knowledge of the language, and context. Learning about language.

