DEVELOPMENT OF EMOTIONAL COMPETENCIES IN AAC: AN AREA THAT DESERVES OUR ATTENTION

Sarah W. Blackstone, Ph.D., CCC-SP

Augmentative Communication Inc.
sarahblack@aol.com
www.augcominc.com
Handouts

- Available at www.augcominc.com
  - Article about emotion and AAC
  - Newsletter about AAC and interior dialogue
  - Power Point slides
  - Bibliography
Emotions

- Emotions play a key role in social interaction and communication

- The development of emotional competence underlies the development of other competencies AND one’s overall quality of life
Emotions

- Emotions come from inside us
- Emotions are associated with feelings
- Emotions are often accompanied by physiological changes
- Our emotions may (or may not) relate to what’s going on externally
There is a sequence to emotional development

- Emotion is initially expressed without awareness using non-linguistic modes.
- Behaviors that express emotion are interpreted by caregivers (happy, sad, angry).
- As children get older, emotions (and their expression) are mediated by social/cultural/linguistic factors.
- Increasingly, emotional development/competence requires language.
- Emotional competence involves communication with self (interior dialogue) and reflects the development of TOM.
“Private communications that are, at least potentially, under the conscious control of the individual and may be used to serve a variety of functions.”

ACN, volume 16#4

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

Beukelman & Mirenda, 2005
Initially may be overt: “self-talk”

Becomes covert: (emotional regulation, rehearsal, self-reflection, creativity, practice/mastery, self-organizing, self-actualization)

Involves Theory of Mind
Ability to perceive, use and manage emotions essential to social and communication development and competence

Why Consider Emotional Development in AAC?

- It’s a “DUH!” Should not be an ‘after thought’ of AAC intervention and/or AAC research
- Must consider BOTH comprehension AND expression of emotions in self AND in others
- Can’t assume “it’ll all work out.”
Observe emotional components of this interaction
Discussion

- What emotions does the baby express?
- How does baby express emotion?
- What emotions does adult express?
- How does adult express emotion?
- What’s missing?

Key role of language in communication AND emotional development!
Children grow up!

Infancy  Toddler  Preschool  School years  Young-Middle-Older Aged-Adults

What happens here ......affects what happens here
Emotion and AAC

Addressing and identifying unmet needs in the field
Maslow’s hierarchy of human needs

Lower end: respect from others (status, recognition, fame, prestige, attention)

Children: family, friends

Children: order, rituals, structure

Basic & strongest

Security Need
The basic need for social security in a family and a society that protects against hunger and violence.

Adults: family, friends, lovers, spouse, colleagues, children

Adults: income, savings, insurance, religion, science, philosophy

Basic & strongest

Love and belonging needs
The need for belonging, to receive and give love, appreciation, friendship.

Higher end: From personal experiences, development of specific competencies.

Esteem Need
The need to be a unique individual with self-respect and to enjoy general esteem from others.

Adults: family, friends, lovers, spouse, colleagues, children

Development of Emotional Competencies in AAC - Blackstone

Maslow’s Hierarchy of Needs

If the need is not met the person feels:

- restless and bored, with a lack of zest for life
- life is meaningless, boring without purpose
- a tendency to avoid growth and development
- listless

- fearful of criticism
- inferior, weak and helpless
- fearful of failure, and of risks (e.g., fear of new situations or learning activities etc.)
- fearful, frustrated, or angry toward those who withhold respect e.g., a teacher, school or college
- envy and bitterness

Persistent thwarting leads to neurotic compensation
- chronic showing off: attention seeking, arrogance
- or shyness and withdrawal

- lonely, rejected, and rootless
- strong conformity to norms
- dislike or hostility towards ‘out-groups’: racism etc.

Persistent thwarting leads to neurotic compensation
- maladjustment and hostility...or withdrawal

- anxiety, dread
- fight-and-flight behaviour
- craving for food, water

If the need is met the person feels:

The Physiological Needs
Food, water, air.

The Safety Needs
Freedom from pain and security, stability etc.

The Belongingness and Love Needs
The need to give and receive love and affection. To ‘belong’, to have roots.

The Esteem Needs
Self-esteem: desire for achievement, strength, and confidence. Adequacy: to be able to cope by oneself.

Respect: desire for reputation, prestige, status and dignity.

The Self-Actualisation Needs
To make actual what you are potentially. Personal growth and development by following one’s own passions and interests. Self-expression, creative need to search for identity, and meaning in life.

Maslow said these needs are rather like vitamins in that:
- we can never be healthy without them
- a long term deficiency causes ‘disease’
- there are no substitutes for them. That is, a child who is aggressive or attention seeking can only be ‘cured’ of this behaviour by getting their esteem and belonging needs met, punishment can never produce a long term ‘cure’.
Challenges for people with CCN

- **Common Thread:** Difficulty with expression and/or comprehension of communication elements

- **Multi-handicapped:** vision, hearing, motor, speech, language, cognitive, communication, social, emotional, behavioral, challenges.

- **Developmental/Acquired disabilities:** face different issues

- **Family members often emotionally impacted:**
  - Physical care, equipment issues, myths about AAC, own day-to-day realities, changing roles, limited social networks, and so on
Adults with acquired disabilities

- Diverse Group: chronic/degenerative/temporary; pre-existing coping abilities

- Issues that relate to emotional competence
  - Adjusting to new realities.
  - Limited access to communication tools/supports
  - Adjusting to shifts in social roles and relationships
  - Financial concerns
  - Guilt, anger, helplessness
  - Loss of sense of “self”
  - Inability to engage in preferred activities
  - End of life issues
Adults with developmental disabilities

- Diverse Group: variety of disabilities and life experiences

- Issues that relate to emotional competence
  - Limited access to communication tools/supports
  - Friendships/relationships
  - Restricted Social networks
  - Education: Access to, quality, attitude, resources
  - Underemployment
  - Limited recreational options
  - Risk factors that increase likelihood of abuse

- Pittsburgh Employment Conference 2009
  AAC and depression.

- ACOLUG postings reflect frustration, sadness, anger from parents and adults who use AAC

- Literature
Themes:
Frustration, Isolation, Humor, Sadness, Love, Anger, Joy

Failure to Communicate

I mean, when I'm not ready to write... like when I'm driving, or I'm at a movie theater, or I'm sitting on the toilet, my Brother AS155 word processor unplugged in the corner. My Compaq 586 cut being serviced [again], my Muse finds it amusing to fill my head with lavish plots for 1000 page epic novels overflowing with raven haired heroines and flaxen haired damsels with landscapes of monumental proportions.

[ideas flow like honey from the Hom o'Fenity]

But when I sit down to write... to really write... the bitch takes a sabbatical, and leaves me standing here. My proverbial pants down around my ankles, Buck ass naked Without even a rejection slip to hide my shame.

- Jack Wright, USA
Children’s Perspectives

BELOVED
Rebecca Beayni, Canada

CHRISTMAS
Christopher Engels, South Africa

Presents
Roast turkey
Exciting crackers banging
Fun and laughter never ends
Jesus’ birthday

FLYING
Christopher Engels, South Africa

Flying, flying up in the trees
Where there isn’t much of a breeze
Flying up high in the trees
Where he likes everything he sees
Until BOOM he falls onto his knees
He isn’t pleased
to fall onto his knobbly knees
He can’t fly so he waves
It to theumble bees

Beneath the Surface
Multi-modal expression

LOVE
Joanna Mikołajczuk, Poland

From the Polish:
Why do people take leave of themselves?
They fear love, yet love does not return.
Why are there wars and not peace?
Yet everywhere there can be love.

From the Bliss:
Why do people set themselves apart?
They are afraid of love.
That love will not be returned.
Why are there wars?
Why are we not peaceful?
Love is possible anywhere.

CAT NAP
Nir Slay, Israel

Oil and Acrylic
Research about emotional development and disability

- AAC: VERY limited (nonspecific)
- Other disciplines? Psychology, SLP, Deaf Ed, MR, Autism
  - **Typical.** Article assessing emotion recognition in 9-15 you (Psychology)
  - **Language impaired.** Understanding emotions in context: ability to infer emotions in children with language impairments
  - **Deaf.** Social and emotional development of deaf children
  - **Asperser's syndrome.** Perception of basic emotions from speech prosody as compared to typical kids
  - **“Mental retardation”.** Article discusses paucity of studies and suggests areas of study
Emerges within a social and cultural framework of experiences

What is Emotional Competence

Having the functional skills to recognize, interpret, and respond constructively to emotions in oneself and others.

Griffiths & Scarantino (2009); Saarni (1999)
## Development of Emotional Competence

### A Framework (Western influence) Saarni, 1999

<table>
<thead>
<tr>
<th></th>
<th>Development</th>
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<tbody>
<tr>
<td>1</td>
<td>Awareness of own emotions</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Ability to discern/understand the emotions of others</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Ability to use the vocabulary of emotion and expression</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Capacity for empathic involvement</td>
<td>8</td>
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</table>
- How individuals deal with emotion varies widely (social, cultural, familial, experience, factors).
- The degree to which someone can access language/communication tools and use them effectively to interact and “self-regulate” will affect their development of emotional competence.
Development of emotional competence in AAC: Challenges

**Individuals with CCN**
- Physical limitations
- Cognitive limitations that may restrict development of TOM
- Emotional expressions are misinterpreted/ignored
- Limited access to emotion language
- Current SGDs lack inflection, volume & pitch modulation, timing nuances, etc.
- Hard to find a good therapist

**Partners/facilitators**
- Often undervalue emotional issues/expressions... distracted by disability, SGDs, day-to-day issues, job descriptions, their own feelings, etc.
- Often focus on using ‘AAC’ to reduce inappropriate behaviors
- May lack knowledge/skills in the area of emotional competence
- May not have expertise/good strategies for understanding/dealing with emotional issues in self or others
## Problems with current AAC focus

<table>
<thead>
<tr>
<th>CURRENT FOCUS</th>
<th>PROBLEM WITH IT</th>
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<tbody>
<tr>
<td>1. Teach symbols</td>
<td>1. limited sets…happy, sad, mad</td>
</tr>
<tr>
<td>2. Decrease behavioral problems/reduce/replace inappropriate behaviors.</td>
<td>2. Functional Communication Training, etc. is great and efficacious, but ignores sequence of emotional development</td>
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<tr>
<td>3. Provide ways to “regulate” emotions/behavior</td>
<td>3. Schedules, calendars, emotion wheels, etc. are great, but in many cases ignores sequence of development related to emotional regulation</td>
</tr>
<tr>
<td>4. Teach use of AAC tools and technologies</td>
<td>5. Problems with AAC technologies…see next slide</td>
</tr>
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Problems with AAC technologies

- Do not support paralinguistic aspects
  - inflection, intonation, nonlinguistic sounds, timing, sarcasm, loudness features, etc.
- Speech synthesizers difficult to personalize
- Do not support “just-in-time” emotional expression
  - Representation and organization not conducive to use
  - Timing issues
Having the functional skills to recognize, interpret, and respond constructively to emotions in oneself and others.

Griffiths & Scarantino (2009); Saarni (1999)
<table>
<thead>
<tr>
<th>Early Development of Emotional Competence</th>
<th>Saarni, 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Awareness of own emotions</strong></td>
<td>Label/talk about emotions across environments</td>
</tr>
<tr>
<td><strong>2. Ability to discern and understand the emotions of others</strong></td>
<td>Identify situations that cause emotions. <em>Talk</em> about/point out the child’s emotions, your own and other’s emotions</td>
</tr>
<tr>
<td><strong>3. Ability to use the vocabulary of emotion and expression</strong></td>
<td>Provide ways to express broad variety of emotions using linguistic and non-linguistic modes. Consider both overt expression &amp; interior dialogue.</td>
</tr>
<tr>
<td><strong>4. Capacity for empathic involvement</strong></td>
<td>Help child understand others have different emotions about same experience</td>
</tr>
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</table>
What might dad have done to acknowledge/support emotional development?
Clinical assessment: Relevant Questions re: Emotional Development

- Can person recognize and label his/her own emotions accurately? Which ones?
- What emotions is person unable to recognize and/or express?
- Does person have access to appropriate/adequate emotion vocabulary? Can they use it?
- What communication modes does person use to express which emotions? Are they effective across settings and partners?
- Are there times others do not recognize (or ignore) the person’s emotional expressions? When? Why?
- Can the person create short narratives that include descriptions of emotion?
- Can person recognize/label emotions in others?
- Can person use strategies for dealing with emotions in situations that are emotionally “charged”?
Intervention ideas: Input

- **Label emotions** (as they are happening) using words/symbols/signs.
- **Identify situations** that cause an emotional response. Then, talk about feelings in advance.
- **Talk to a child about his/her emotions** using symbols/signs/words. Point to symbols on a display or use the child’s device in natural settings.
- **Talk to a child about another person’s emotions**, while pointing to symbols/using signs.
- Help a child learn how his/her emotions might be the same or different from how a friend feels/behaves.
- **Discuss narratives** (stories, events, etc.) to expand access to a range of more complex emotions and teach ways to express them.

ISAAC 2010 Barcelona
Intervention ideas: Output

- Provide access to words that describe emotions and encourage their use
  - Get WAY beyond happy, sad, angry
    - Confused, frustrated, hopeful, mad, disappointed

- Encourage “emotion talk” in natural settings

- Accept and encourage use all modes to express emotion

- Provide opportunities to develop narratives that describe events, stories, fantasy

- Role play/dramatic play to enact scenarios that depict situations with emotional content.
What can we ask families to do?

Ask caregivers to

1. Learn about the development of emotional competence
2. Talk about their own emotions
3. Acknowledge/name what person who uses AAC is feeling and trying to express
4. Use symbols/pictures that depict emotion words in everyday activities
5. Develop a bedtime routine that helps child describe theirs day and feelings about it.

Point out emotions during storybook reading.

1. Talk about how characters are feeling
2. Talk about how child may be feeling about the story.
<table>
<thead>
<tr>
<th>Later Development of Emotional Competence</th>
<th>Saarni, 1999</th>
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</thead>
<tbody>
<tr>
<td>4. Capacity for empathic involvement</td>
<td>Understanding of others emotional reactions</td>
</tr>
<tr>
<td>5. Ability to differentiate internal subjective emotional experiences from external emotional expression</td>
<td>Learn about mixed emotions. Learn emotional display rules</td>
</tr>
<tr>
<td>6. Capacity for adaptive coping with aversive emotions and distressing circumstances</td>
<td>Learn how to regulate emotion in oneself and others</td>
</tr>
<tr>
<td>7. Awareness of emotional communication within relationships</td>
<td>Empathy, emotional regulation, etc.</td>
</tr>
<tr>
<td>8. Emotional self-efficacy in accord with one’s moral sense</td>
<td>Self actualization, moral code, beliefs</td>
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Empathy, Self-Regulation/Modulation, Self-Efficacy

- Higher level skills
  - Theory Of Mind
  - Interior Dialogue

- Require access to language to negotiate meaning and social relationships

- Since much is internalized, we may only see behaviors that hint at difficulties or development
“Children use ToM to construct the type of inner world and inner communication that enable them to work through tough emotional situations and to develop emotional stability and coping mechanisms.”

Begins to emerge in preschool, but doesn’t develop fully until later in childhood (and beyond).

Astonington & Baird, 2005; Schneider, Lockl, & Fernandez, 2005 and so on.
Interior dialogue (self-talk)

“Private communications that are, at least potentially, under the conscious control of the individual and may be used to serve a variety of functions.”
ACN, volume 16#4
www.augcominc.com

“To Light’s list, we would add a fifth purpose—to communicate with oneself or conduct an internal dialogue.”
Beukelman & Mirenda, 2005
# Interior Dialogue Tools

**ACN, volume 16#4. Go to www.augcominc.com**

<table>
<thead>
<tr>
<th>Functions</th>
<th>Some AAC examples</th>
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<tbody>
<tr>
<td>Emotional regulation</td>
<td><em>Feelings Book</em>; <em>Emotion wheel</em>; <em>Social Stories</em>; Daily/weekly schedules.</td>
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<tr>
<td>Rehearsal</td>
<td>Stored messages on a device or prepared in a communication book/board.</td>
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<tr>
<td></td>
<td>Using a device/board to practice without an interlocutor.</td>
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<tr>
<td>Self-reflection</td>
<td>Accessible diaries, journals, paper and pencil with privacy protection/encryption.</td>
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<tr>
<td>Creativity</td>
<td>Accessible drawing, painting, music, drama, creative writing, etc. opportunities</td>
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<tr>
<td></td>
<td>with appropriate materials.</td>
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<tr>
<td>Practice/mastery</td>
<td>Depends on what someone <strong>wants</strong> to learn, e.g., computer with appropriate software,</td>
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<td></td>
<td>AAC device, accessible chess set, etc. For example, may include strategies to</td>
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<td></td>
<td>teach visualization techniques.</td>
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<tr>
<td>Self-organizing/memory</td>
<td>Make lists, schedules, use planning strategies. AAC devices may have alarms or</td>
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<td>other memory aids (accessible daily/weekly planners, PDAs).</td>
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<tr>
<td>Self-actualization</td>
<td>Opportunities to read/explore a range of processes offered through art, cultural</td>
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<td>and spiritual activities.</td>
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Research evidence: Down Syndrome: Young adults in the UK

- Glenn and Cunningham (17-24 years)
  - “Self-talk” or “private speech” widely observed (91%)
  - Talking to objects, self-dialoguing, giving selves directions, describing activities, muttering.
  - No correlation between young people’s private speech and behavior problems, communication difficulties or social isolation.
Chicoine, McGuire and Greenbaum

- 81 percent of 500 adults (median age = 34)
- Reflected emotional intensity of the individual’s daily life.
- 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.
- Functions of self-talk: Problem solve, vent feelings, entertain themselves and process the events of their daily lives
Behavior management/‘emotional regulation’

Modify/“fix” inappropriate/ disruptive behaviors

Minimal, if any, consideration of emotional development/level of competence

What about the emotional development/competencies of persons with behavioral challenges?
An ability to manage one’s emotions presupposes that emotional competencies at earlier levels are achieved.

1. Awareness of own emotions
2. Ability to discern/understand others
3. Ability to use vocabulary of emotion and expression
4. Capacity for empathic involvement
5. Ability to differentiate internal subjective emotional experiences from external emotional expression
6. Capacity for adaptive coping with aversive emotions and distressing circumstances
7. Awareness of emotional communication within relationships
8. Emotional self-efficacy in accord with one’s moral sense
   
   (Saarni, 1999)
Symbols

More concerned with representation

Very limited emotion vocabularies in both type/nuances and number of symbols

Often NOT taught in naturalistic settings, but rather as a “group” to express feelings

Language

Concerns focus on wants/needs; social etiquette/closeness and information exchange

Minimal attention to interior dialogue

Emotional features are key component of pragmatics, especially in AAC!
Emotion vocabularies in typical kids

- 221 primary students and 112 secondary students described a scene about emotional state and generate single words to describe feeling.
  - Produced 21,000 words total
  - Mean of 97 (SD 35)
  - Over 14 yo significantly more words than younger kids
  - Girls more than boys
  - 25 most frequent words in 10 categories included.

<table>
<thead>
<tr>
<th>Literature and literacy instruction</th>
<th>Websites</th>
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</thead>
<tbody>
<tr>
<td>Classic children’s literature</td>
<td><a href="http://www.accessiblebookcollection.org">www.accessiblebookcollection.org</a></td>
</tr>
<tr>
<td>Reading curricula (e.g., ALL Curriculum)</td>
<td><a href="http://schools.nyc.gov/Offices/District75/Departments/Literacy/AdaptedBooks/default">http://schools.nyc.gov/Offices/District75/Departments/Literacy/AdaptedBooks/default</a></td>
</tr>
<tr>
<td>Social stories</td>
<td><a href="http://tarheelreader.org">http://tarheelreader.org</a></td>
</tr>
<tr>
<td>Personal books</td>
<td><a href="http://aacliteracy.psu.edu">http://aacliteracy.psu.edu</a></td>
</tr>
<tr>
<td>Different genres</td>
<td></td>
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<tr>
<td>Photo Albums (Talking)</td>
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<tr>
<td>Computer activities</td>
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Role of narrative

- Help establish personal and social identity
- Fundamental to the development of overall communicative competence
- Involves coordination of a variety of knowledge structures and linguistic abilities.
Children who use AAC experience significant difficulties in the production of fictional and personal narratives.

Specific interventions are needed.
Enhancing the Personal Narrative Skills of Elementary School-Aged Students Who Use AAC: The Effectiveness of Personal Narrative Intervention


Supporting the development of narrative skills of an eight-year old child who uses an AAC device

Analysis of Narratives Produced by Four Children Who Use AAC


Using written stories to support the use of narrative in conversational interactions: Case study,

1. What skills does the person demonstrate?
2. Does person have access to a range of tools and techniques that support emotional expression? How use them?
3. Does person understand emotions others express? mixed emotions?
4. Does person have access to tools and strategies that support “interior dialogue”?
5. Can person manage emotion during difficult situations? How?
6. How does person manage communication breakdowns?
7. How does person manage situations where partners act inappropriately? Rudely?
8. Can the person create narratives that include descriptions of their own and other’s emotions?
9. Does person understand emotional content in stories/books?
10. What strategies does person use when dealing with complex situations. Can they regulate their own/other’s emotions? How do they do it?
Talk about mixed emotions while modeling the use of symbols/words.

“Hmmm...your face tells me you may not be sure HOW you feel. What do you think?

Talk about hiding ones emotions.

“Sometimes it’s a good idea to hide how your feeling. I thought you had very reason to be angry, but you just smiled.” Good going! How did you really feel?
Intervention Ideas

- Build on developmental sequence of emotions across partners and settings
- Acknowledge the need to develop interior dialogues. Provide tools that accommodate people with CCN.
- Encourage all modes of expression, including creative (poetry, fiction, drawing, music, acting)
- Provide a range of tools and techniques that support more complex emotional expression
- Use literature, movies, TV, personal narratives to encourage emotional development.
Use strategies that highlight emotion

- Emotion wheel
- Social stories
- Stories about kids with disabilities
- Movies about people with disabilities
- Social groups
- Theatre/role playing
- Other ideas?
Authenticity

- Be an “authentic” partner.
- If you don’t understand, admit it. It’s a teaching moment.
- Talk about how YOU feel and encourage emotional expression.
- Teach person to use specific strategies that help regulate their own emotions as well as support partners
- When you engage in interactions where you are “testing”, be honest.
  - “We’re going to play a stupid game where I pretend I don’t understand.”
1. We need to address emotional development
2. We need to do so using an existing framework
3. We don’t have to reinvent the wheel. Others are ahead of us.
4. We need ACTION: Research, AAC technologies, Clinical practice
5. What else?
END
1. Introduce yourself.

2. 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 the system works?

3. Don’t feel you have to keep talking all the time. Relax and get used to a different pattern of interaction.

4. Pause and wait for the person to respond or construct a message. Be patient. It might take while.

5. Give the person an opportunity to ask you questions or make comments.

6. Don’t finish the person’s message unless you first ask permission.

7. Interact at eye level if at all possible.

8. Pay close attention to facial expressions and gestures.

9. Be honest. If you don’t understand, admit it. Ask the person to tell you again, perhaps in a different way.

10. Talk directly to the person.