What's It All About? Creating a Communicative Environment

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The Right to Communicate

Every child has a right to communicate, and there are many different ways in which children communicate their thoughts and needs. Whether it is through speech, gestures, sign language, pictures, or a voice output communication system, the important thing is that your child can begin communicating and learning with you.

Why Is Integration Important?

Training

"Technology and Augmentative Communication Systems can be very powerful, but they are useless in enabling children to realize their potential without appropriate training and a supportive environment."

Linda J. Burkhart. What We Are Learning About Early Learners and Augmentative Communication and Assistive Technology. [Online] Available http://lburkhart.com, 11-5-04.

Dr. John D. Barge, State School Superintendent
"Making Education Work for All Georgians"
www.gadoe.org

Implementing augmentative communication and assistive technology consumes an enormous amount of time and energy from therapists, teachers, parents and the child.

This is especially true if it is an addition to the curriculum instead of an integral part of it.

Linda J. Burkhart. What We Are Learning About Early Learners and Augmentative Communication and Assistive Technology. [Online] Available http://lburkhart.com, 11-5-04.

The art and science of augmentative communication and Assistive Technology is still a developing field.

- we are still learning new strategies

- equipment/technology is rapidly changing

- we don't have all the answers, research in this field is just beginning

- we learn from the children and their reactions and preferences

Linda J. Burkhart. What We Are Learning About Early Learners and Augmentative Communication and Assistive Technology. [Online] Available http://lburkhart.com, 11-5-04.

"The focus of intervention should not be <u>merely</u> to teach a child how to operate or use an AAC device or system."

Intervention should be focused on teaching the basic communication skills that will improve an individual's life by enabling participation in ongoing events and activities in his or her environment.

Remember: AAC Competency Takes Time!

Jane Korsten points out that the average 18 month old child has been exposed to 4,380 hours of oral language at a rate of 8 hours/day from birth. A child who has a communication system and receives speech/language therapy two times per week for 20-30 minutes sessions will reach this same amount of language exposure in 84 years.

So What Does Successful AAC Integration Get the Student?

- Establishing a Means of Communication and Social Interaction

- Promoting Language and Speech Development

- Supporting Cognitive Development, Enhancing Work and Educational Opportunities

- Enhancing Social Participation

So How Do We Integrate AAC?

Strategies

- Aided Language Stimulation (ALS)
- Engineering the Environment

Aided Language Stimulation

What is Aided Language Stimulation?

"Aided Language Stimulation is a teaching strategy in which the facilitator highlights symbols on the user's communication display as he or she interacts and communicates verbally to the user."

Goossens, Crane and Elder, 1999

What is Aided Language Stimulation?

- In Aided Language Stimulation the communication facilitator points to pictures (or highlights) symbols on the student's communication display and speaks simultaneously.

- The concept of using symbols interactively is modeled through this process.

Research in Aided Language Stimulation
Symbol Comprehension/Production

One study involved 3 preschool children with moderate cognitive disabilities who were functionally nonverbal. Results of the study showed that all three children displayed increased symbol comprehension and production following the implementation of aided language stimulation.

M. Harris & J. Reiche, The Impact of Aided Language Stimulation on Symbol Comprehension and Production in Children With Moderate Cognitive Disabilities, American Journal of Speech-Language Pathology, Vol. 13, 155–167, May 2004

Research in Aided Language Stimulation
Vocabulary Development

One study followed a nonverbal, behaviorally and cognitively challenged adolescent with autism. Using a natural aided language approach and picture communication boards, the student was provided with intense visual-paired-with-verbal-language input in each activity and environment of his school day. Without training or prompting, the young man's picture language receptive and expressive vocabulary increased during the intervention.

J. Cafiero, The Effect of an Augmentative Communication Intervention on the Communication, Behavior, and Academic Program of an Adolescent with Autism, Johns Hopkins University Division of Education, National Academy of Science Committee on Educational Interventions for Children with Autism, 14112 Castaway Drive, Rockville, MD 20853, JMC1@JHU. EDU, www.outersound.com/cafiero

Research in Aided Language Stimulation
Multi-Symbol Production

A study followed 5 preschoolers (three who used voice output communication systems, two who used non-electronic com-munication boards) where Aided AAC models were provided. Four of the five preschoolers learned to consistently produce multi-symbol messages; the fifth did not demonstrate consistent gains. The four preschoolers who met criterion all evidenced long-term use of symbol combinations and generalized use of symbol combinations to novel play routines.

C. Binger & J. Light, The Effect of Aided AAC Modeling on the Expression of Multi-Symbol Messages by Preschoolers who use AAC, Augmentative and Alternative Communication, March 2007, Vol 23 (1), pp 30-43

What are the Benefits to Aided Language Stimulation?

- Teaches symbol meaning
- Promotes comprehension of the symbol through the visual cue and the spoken label
- Models use of symbols for communication

Remember that individuals need to receptively understand before they begin to expressively use language

Why Use Aided Language Stimulation?

- Eliminates the need for specific therapy time for learning (comprehension and expression)
- Shows them how to use the AAC system successfully
- Shows them how to put together messages
- Shows the child that people accept their AAC system because they are willing to use it
- Makes you more aware of what it is like for the child to use the system
- Makes you aware of what words are needed on the AAC system

Excerpts from: Factsheet-Augmentative and Alternative Communication (AAC) Training (www.novita.org.au)

Engineering the Environment

What does it mean to engineer the classroom?

- Carol Goossen's, Sharon Sapp Crain and Pamela S. Elder coined this term in the early 1990's.

- It means embedding augmentative communication into the classroom in a way that ensures that students have access to opportunities for communication.

What is involved?

- Infusing opportunities for using AAC into the daily curriculum

- Using Aided Language Stimulation as a dominant teaching strategy

- Using systematic teaching strategies such as time delay, sabotage of routine, and verbal prompting

What is involved?

- Providing access to communication symbols to function as aids for receptive and expressive communication.

- Setting the school environments up with appropriate vocabulary.

- Providing organized and easy access to symbols.

- Creating an environment that fosters communication development.

Engineering the environment(s) is the base foundation for modeling, training, teaching, using aided language stimulation, giving opportunities to communicate, teaching in natural settings and using pictures as your second language.

What does an engineered classroom look like?

- It is a communication rich environment that supports and expands on a variety of communication modes.

Symbols

Signing

AAC Devices

Speech
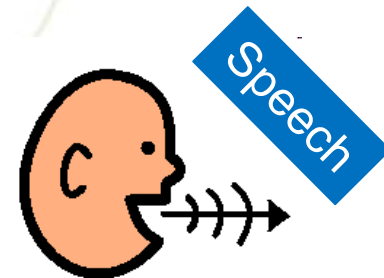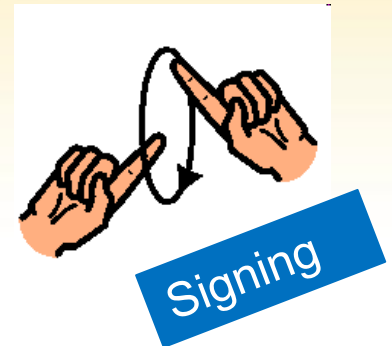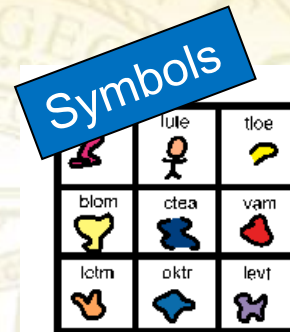
It may involve the use of varied symbol sets….

TANGIBLE

crackers

PHOTOS

eat

LINE DRAWINGS

and varied modes of access.

- Direct Selection
- Adapted Direct Selection (pointers, adapted pointers)
- Alternate Access Devices (auditory/visual scanning)

Communication is a major focus in all instruction.

- There are no set times for communication training.
- Every activity/event provides an opportunity for communication instruction.
- Instruction occurs throughout the school day.
- Carol Goosens explains that children need to learn symbol use by being immersed in it, just as second language learners need immersion.

Communication is taught in natural environments.
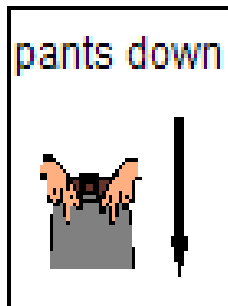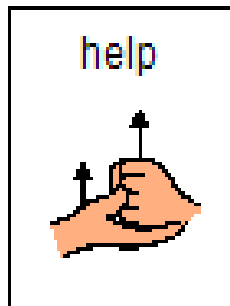
Why is it so important to teach communication skills in natural environments?

- Provides the topic and context necessary for communication

  "Without participation, there is no one to talk to, nothing to talk about, and no reason to communicate" (Beukelman & Mirenda, 1992).

- Instruction in natural environments aids in the generalization of skills

What does an engineered environment look like?

Let's tour a well engineered classroom!

Classroom Picture Schedule

- All classrooms should have a schedule! Schedules help students transition between activities and plan their day! Schedules may be classroom and/or individual student oriented.

picture schedule

finished
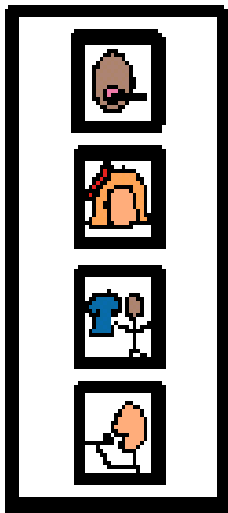
The focus of schedules may initially be teaching RECEPTIVE skills.
Remember, the teacher is the one referencing the schedule.

EXPRESSIVE skills are the natural outcome of using schedules.

Question: What would you do if a student went to the daily schedule and pointed to a picture?

Would you stifle the communication attempt? Would you see it as progress and acknowledge the communication?

Blocks/Legos

Helpful Hints:

- Put your pictures directly on the box or storage bin lid that you keep your blocks in.

- If you use those heavy cardboard blocks - tape the pictures directly on several of the blocks or use a cutting board

blocks

blocks

tower

knock it down

do again

don't kick

build
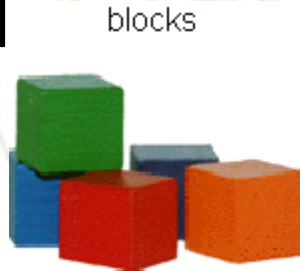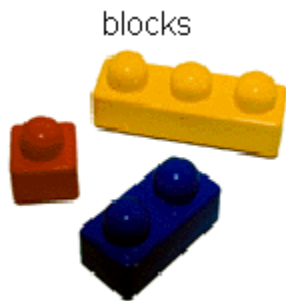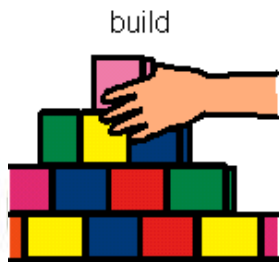
crash

Music

Helpful Hint: Put your pictures directly on a CD case.

Change CD
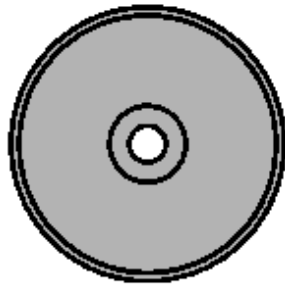
can't hear

too loud

again

clap

Wagon/Wheelchair Walk/Ride

Helpful Hints:

- Place pictures on wheelchair tray or on cutting board
- Use a device that holds one, two or four messages

stop

go

fast

slow

Playing Ball

Helpful Hint:

- Tape the pictures directly on the ball!
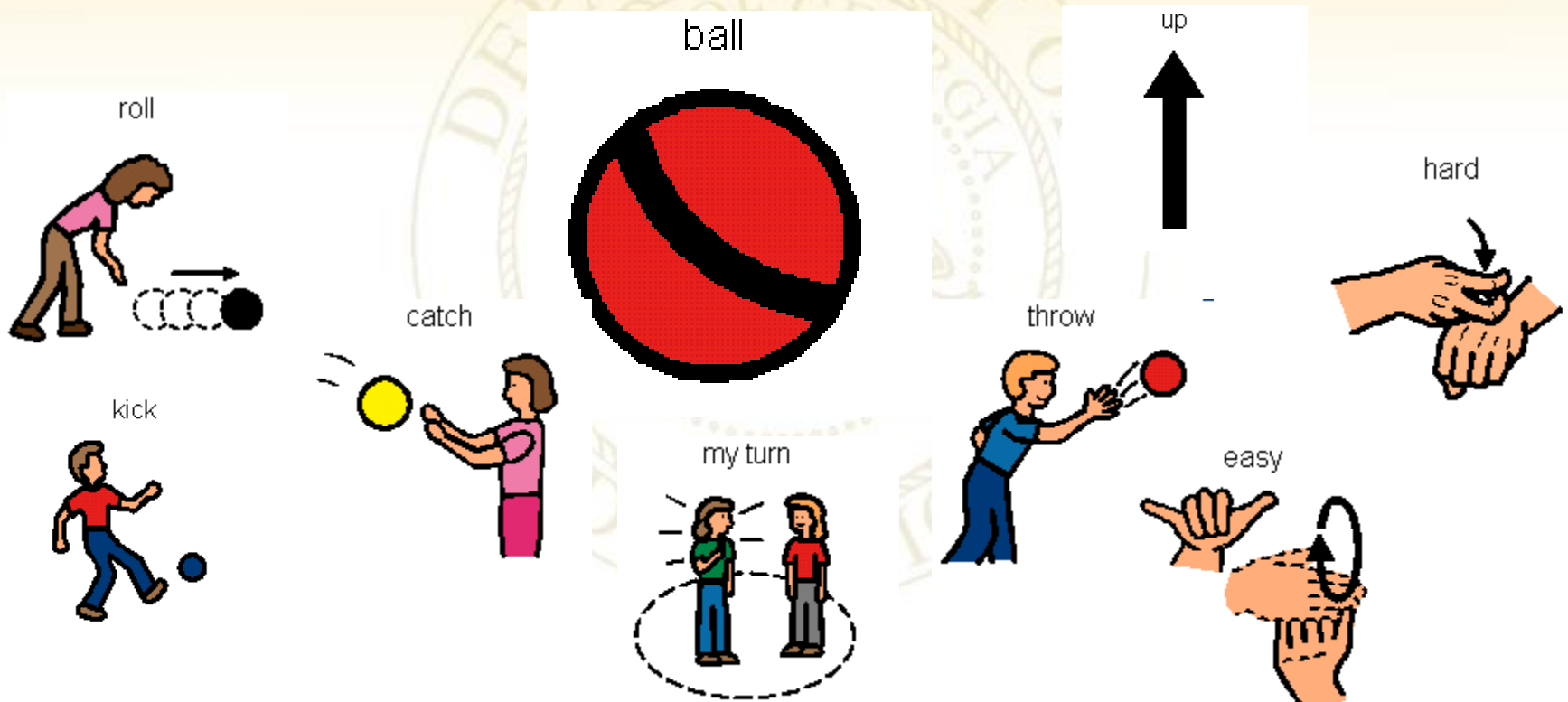
Shoebox Tasks
Helpful Hint:

- Put pictures on the storage bin lid.
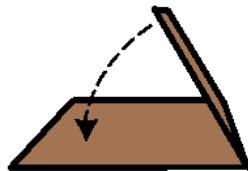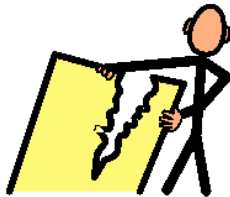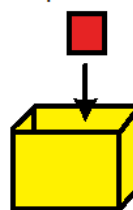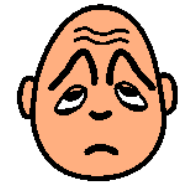
Circle Time

Helpful Hint:

- Have student pictures attached to a big board. Talk about who is home and who is at school.

home
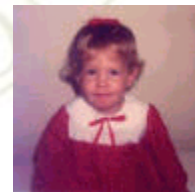
Not here today

here

school

SCHOOL

Toddlers (Ages 1-3)

Morning Meeting

Art

Coloring

Helpful Hint:

- Place pictures of colors and other art vocabulary directly on box/container where markers/crayons are stored

markers

crayons

construction paper

put in bookbag

ugly

pretty

hang on wall

blue

yellow

red
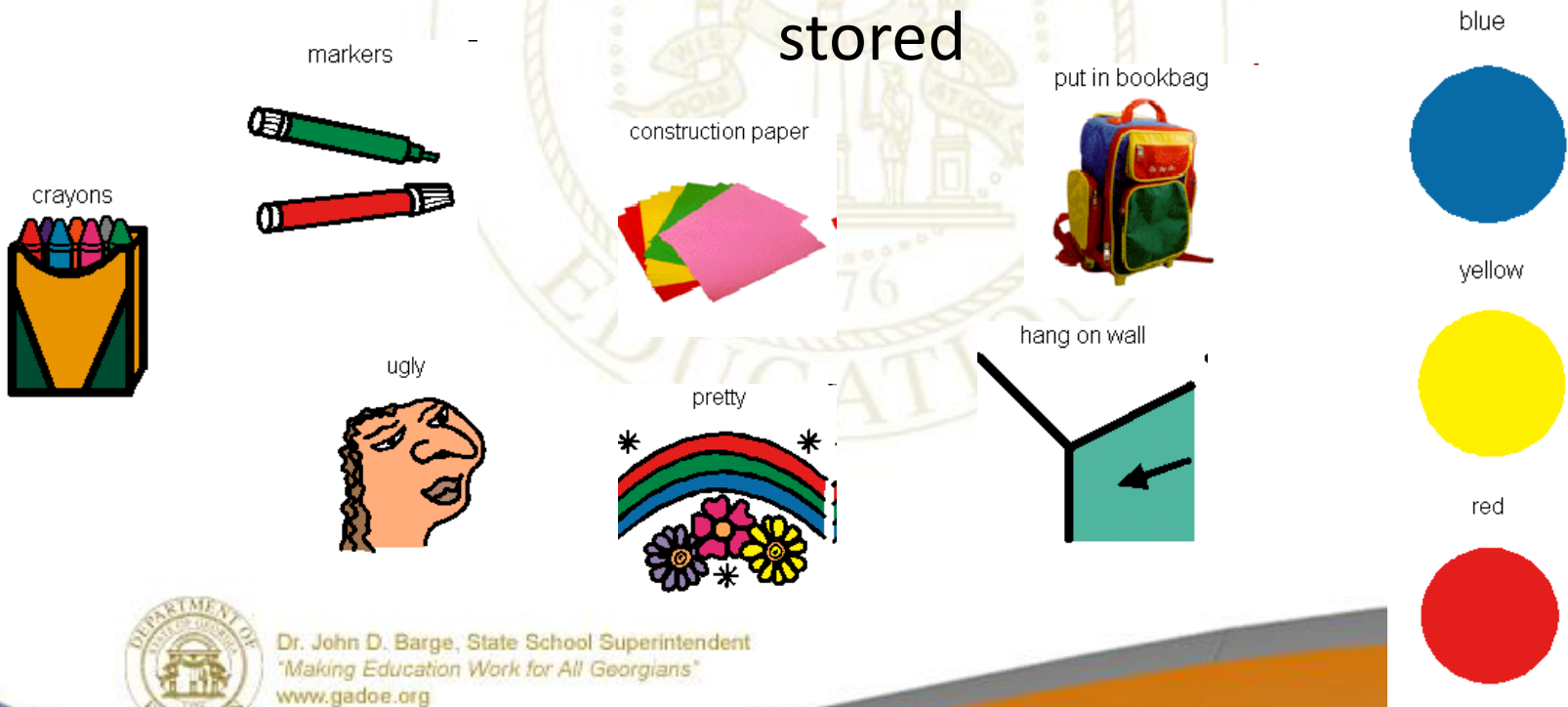
Painting

Helpful Hint:

- If using an easel, tape pictures around outside edges of easel
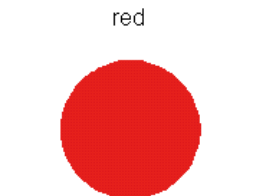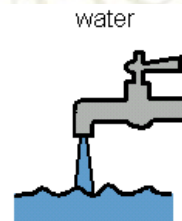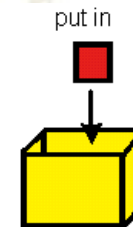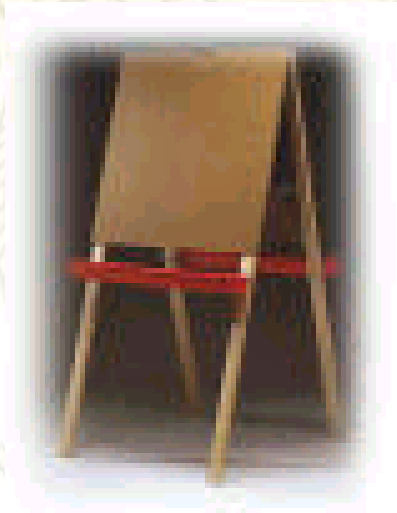
Computer Time

Helpful Hint:

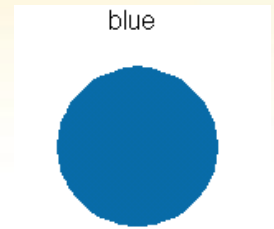- Velcro or tape pictures around the outside of the computer monitor.

Old MacDonald

Blues Clues

Bailey's Bookhouse

change program
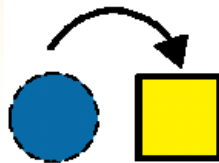
funny

I don't like that

headphones

finished

I need help

too loud

scary

Bathroom/Diaper Changing Area

Helpful Hint:

- Tape/Velcro pictures over changing area or tape to bathroom stall/wall
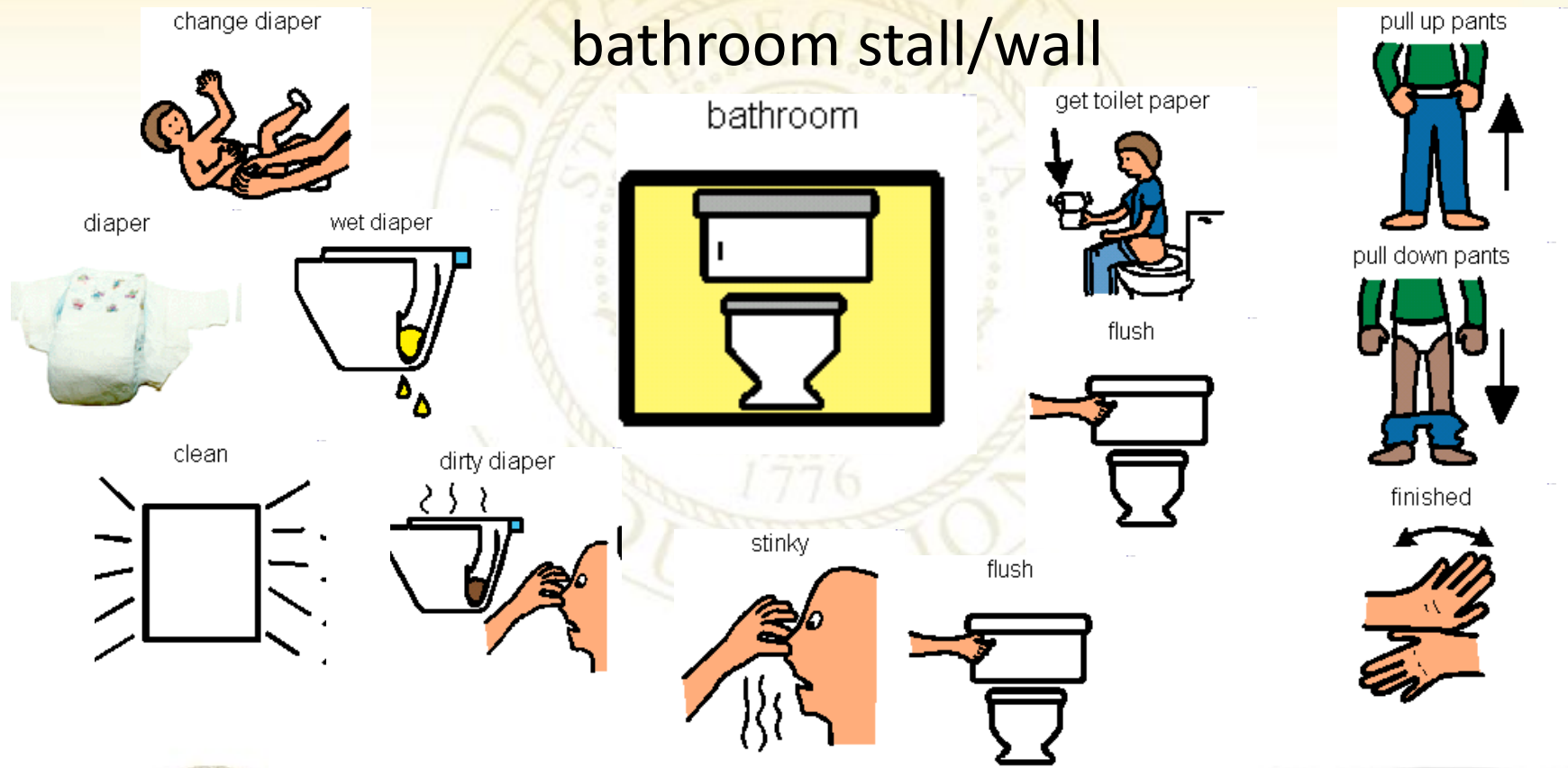
Washing Hands

Helpful Hint:

- Tape pictures around the sink area or directly on the mirror

Outside Play

Helpful Hint:

- Attach pictures to a bracelet/key ring and let student "wear" their communication

slide

sand box

cold

hot

thirsty

swing

take off jacket

my turn

I don't want to

fun

wait a minute

1
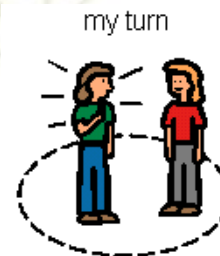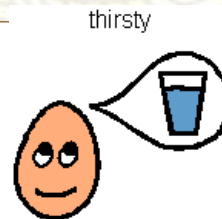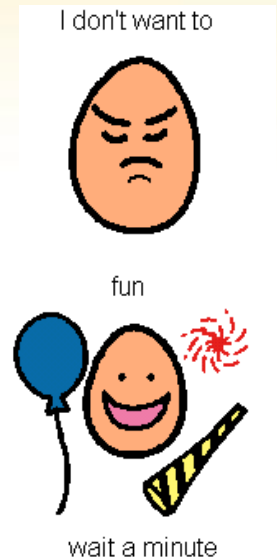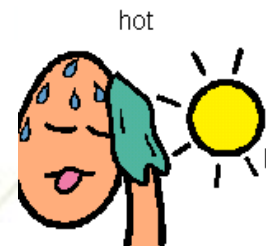
Arrival and Departure

Helpful Hint:

- Tape/Velcro pictures around door frame in classroom and door frame leading outside the building
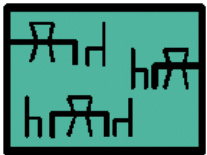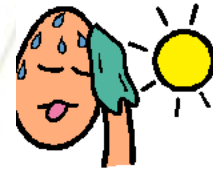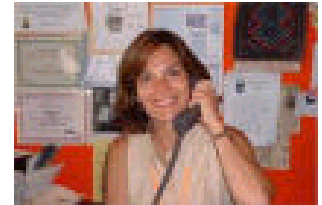
Arrival and Departure

Helpful Hint:

- Attach pictures to bookbag using a book ring

look in my bookbag
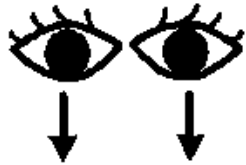
backpack

toy in bookbag

cold

hot
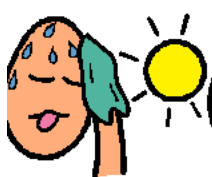
raining

too heavy

note in bookbag

sunny

windy
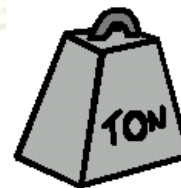
Community Based Instruction

Helpful Hint:

- Attach symbols to a backpack with metal clip fastener
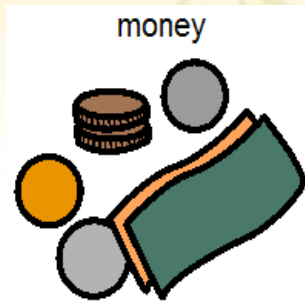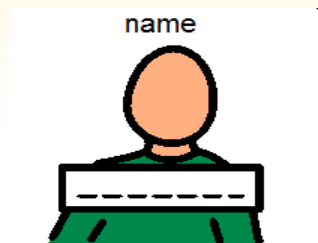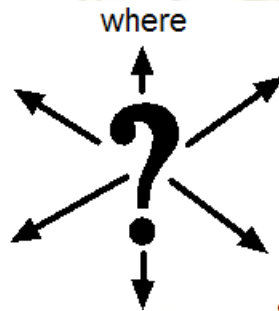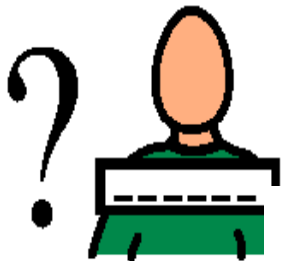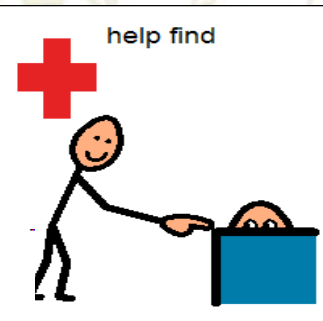
Breakfast, Lunch and Snack

Helpful Hints:

- Attach pictures to a placemat

- Attach pictures directly to the eating table

wait a minute
1
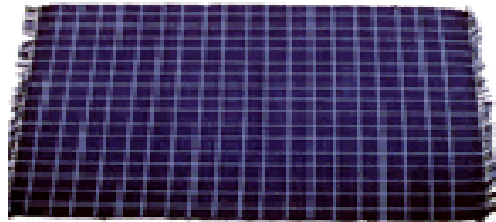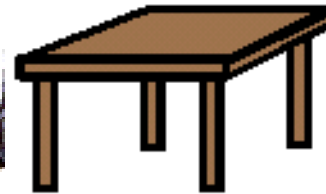
place mat

table

napkin
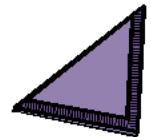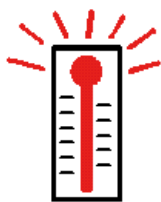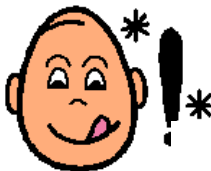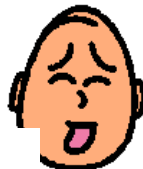
hot

yummy

yucky

more

spoon

messy

milk

fork

sauce

ketchup

Breakfast, Lunch and Snack

Helpful Hint:

- Tape pictures on lunchboxes or lunch bags
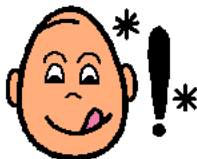
Breakfast, Lunch, Snack Clean-Up

Helpful Hints:

- For wiping mouth/face, provide a small locker size mirror with pictures around the edges

- Provide picture cues as to what goes in the sink, trash and refrigerator

dirty

fridge

pudding

clean

wipe face

mouth

milk
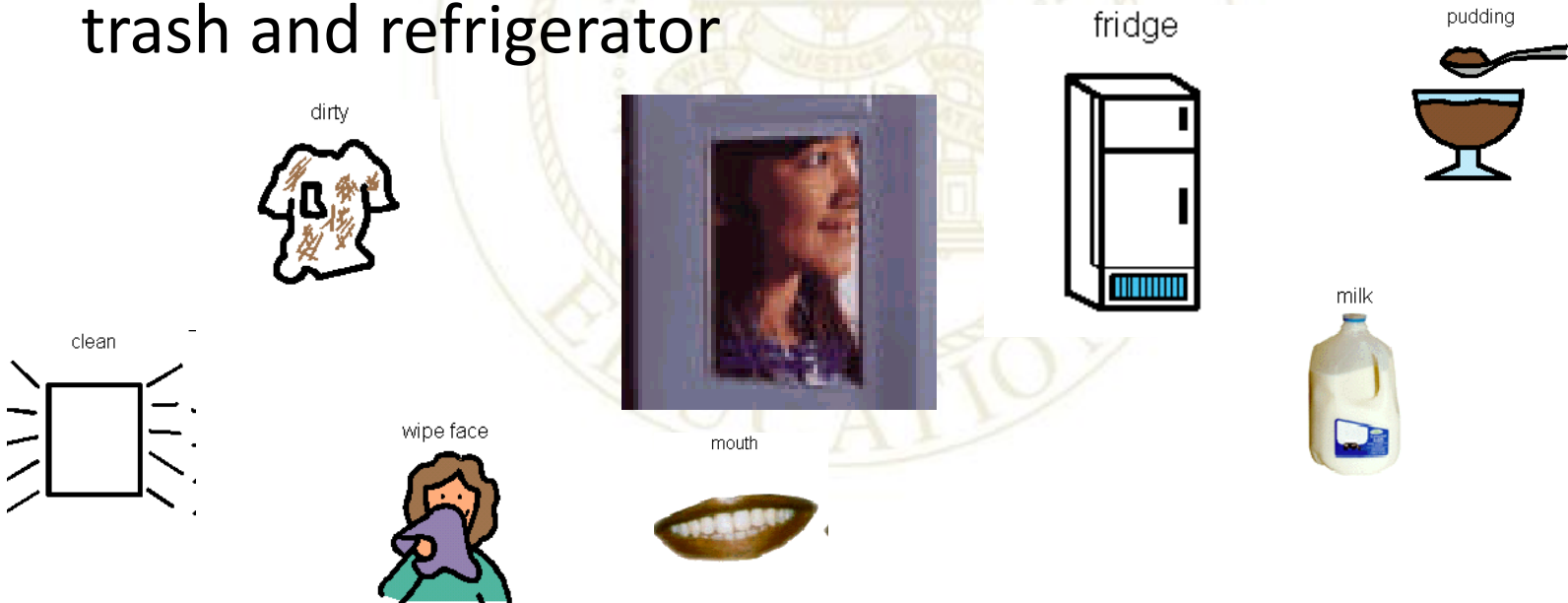
Story Time

Helpful Hint:

- Tape your activity-based vocabulary to a cutting board – this props up easily
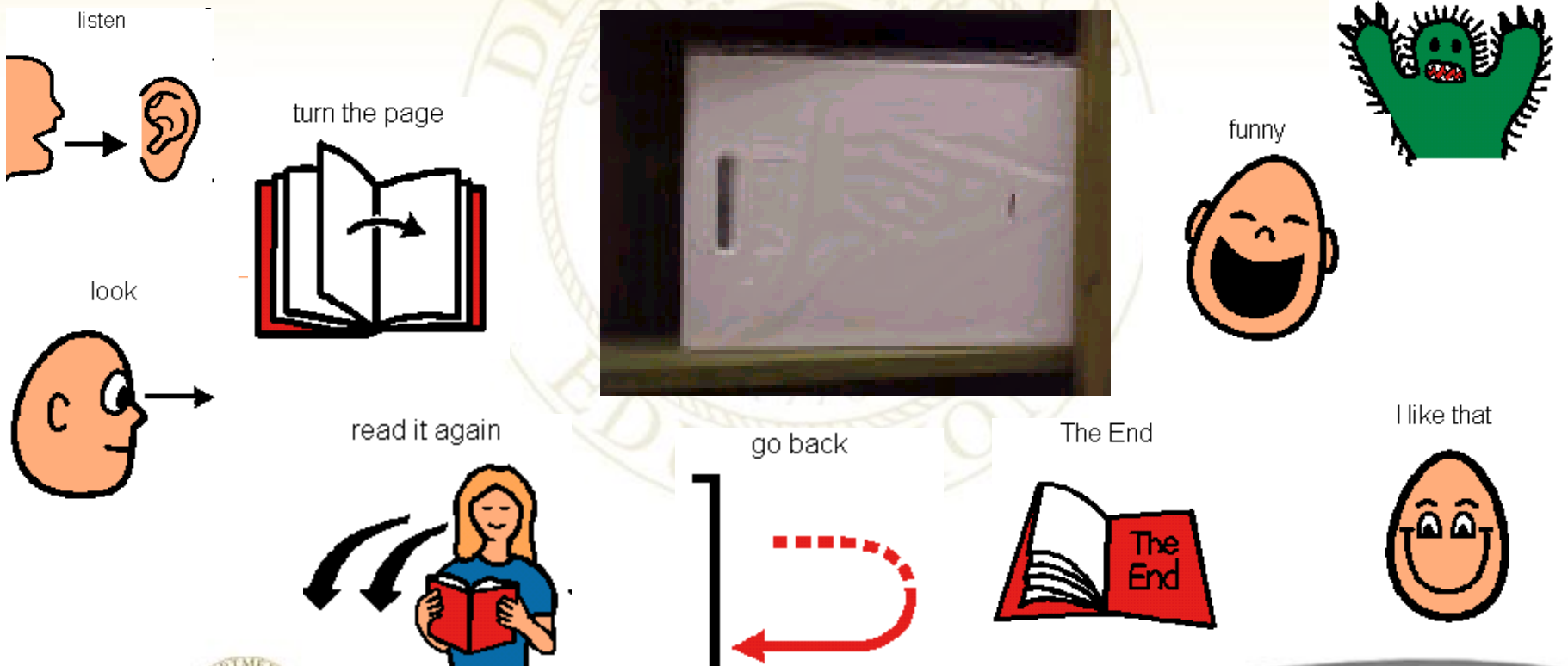
Got the engineering idea?

- Pictures every where! Just remember, engineering is more than labeling!

- The communication partner should be pointing to the pictures as the activity is taking place in natural occurrences.

- The pictures should always be placed in reach of students. They'll start pointing when they are ready!

Some Food for Thought

- If picture/object symbols are not organized and convenient for you to access and use, they will not be used by your students. Likewise, displays should be stored in a format that allows for quick access and quick set-up!

- If activities are not motivating to your student, they probably aren't worth talking about.

How Do I Begin to Engineer the Environment?

1. Identify and prioritize communication activities.
2. Decide on vocabulary for each activity and select the symbol set.
3. Depict vocabulary on communication displays appropriate for the target student.
4. Place communication symbols in the environments where they will be used.
5. Implement a systematic approach to cueing and teaching students to use the boards.

How Do I Prioritize Communication Activities?

- Begin with the obvious. Select daily activities that are motivating and are rich in communication opportunities.

- Follow the child's lead! Seize the moment.

How do I decide on vocabulary?

Choose your vocabulary wisely!

- Choose fun vocabulary! Listen to other children to help select vocabulary

- Move beyond wants and needs vocabulary

- Use language that creates communication opportunities, such as "what do you want?" versus "do you want a cookie?"

- Make the vocabulary (symbols) accessible

How do I decide on vocabulary?

Choose your vocabulary wisely!

- Complete activity-based inventories. Vocabulary collection should be on-going!

- Provide vocabulary for commenting, describing, rejecting, teasing, and so forth

- Choose vocabulary that allows you provide a rough running commentary of what is taking place.

So, how do we teach our kids to use symbolic representation ?

Have fun! Make it your second language!

- Be animated and expressive while using pictures.

- Be patient with your students. Learning takes time. Think of all the months it takes for a newborn to say that first real word.

- Point to pictures and supplement your spoken language as much as possible – model. They ARE watching you!

Remember the guiding principals are the same for using voice output devices and picture symbols.

- Include devices as <u>part</u> of the engineered environment. Devices used as the sole mode of communication won't work.

- Don't worry that every symbol is not available on a communication device. That's where engineering comes in handy!

- Ideally, core vocabulary should always be on the device.

Remember the guiding principals are the same for using voice output devices and picture symbols.

- Understand that some students will immediately begin to activate a device and learn through trial and error while others may not understand symbolic communication - using pictures or objects to communicate. They require intensive exposure, modeling and training.

- Don't give up because a student won't use a device to begin with. Keep them immersed in a symbol rich environment! Be consistent in using the symbols yourself!

Remember the guiding principals are the same for using voice output devices and picture symbols.

- Integrate the device into activities throughout the school day.
- Use the device for a variety of activities
  - Use the device for repetitive lines in stories and songs.
  - Use the device for non time dependent lines.
  - Use the device for participation – no right or wrong.
- If your room is engineered and your students are immersed in a symbol rich environment - device integration should come naturally!

It often helps when peers and siblings use the same system that the AAC user is using.

If a peer or sibling is actually using the same AAC device, it may assist the AAC user in feeling that the system in question is more natural and less stigmatizing.

Learning Should be Fun!

Pick objectives that are meaningful to the child and take the time to develop a good rapport with the child. Children tend to do better with those individuals with whom they feel safe and secure.

Taken from the website for Augmentative and Alternative Communication Connecting Young Kids (YAACK))[online]
http://aac.unl.edu/yaack/index.html

Teach in natural settings. Choose places in which the child is familiar, feels at ease and is motivated.

This strategy is also easier to accomplish when teaching is integrated into daily activities. Teaching is often most effective when it is integrated into daily activities and routines, including play time.

Taken from the website for Augmentative and Alternative Communication Connecting Young Kids (YAACK))[online]
http://aac.unl.edu/yaack/index.html

Strategies for Successful Interventions:

- Provide access to the required assistive technology in all appropriate environments

- Integrate technology use into naturally occurring activities

- Train staff in use of the student's technology

- Monitor use of technology and make changes as needed

- Plan for communication opportunities throughout the day

Final Thoughts

- WOW! Once it's done it's done!
- Take initial engineering in small bite size pieces.
- Train, encourage and expect everyone working with your students to supplement their spoken language with pictures as much as possible.
- Believe in what you are doing.
- Believe that all children can benefit from augmentative and alternative communication.

- Understand that there are no prerequisites for a young child to be introduced to AAC. The earlier, the better. That is what early intervention is ALL about!

- Don't give up because a student won't use a device to begin with. Keep them immersed in a symbol rich environment! Be consistent in using the symbols yourself!

- Some students require intensive exposure, modeling and training.

- Understand the importance of modeling. Many of our students are not going to learn AAC skills incidentally or intuitively. Strive to provide ample demonstration and modeling.

- Be consistent in symbol use, symbol placement and symbol selection.

- Be willing to start with a few symbols. Because of the sheer nature of AAC, it is highly unlikely you will have all the vocabulary you could have or should have for an activity.

- Be sure picture symbols are accessible to your students. They can't imitate you or even try to point to pictures if they are not available. It is often beneficial for the teacher to have a "master board" and students to have immediate access to that board or have a master board duplicate for each child within reach. The production of picture symbols is time consuming and costly. Resist the urge to try and "protect" the symbols by placing them out of reach and controlling when kids have access to them.

- Provide adequate opportunities to communicate. Give your students time and room to communicate. Let them do it.

- Let them communicate (expect it), even when you already know what they want (move beyond anticipating needs and care-taking).

- Sabotage the environment and activities in order to create communication opportunities by placing objects out of reach, leaving materials out of an activity, or just being silly!

- Commit to selecting a range of vocabulary options! Vocabulary selection is critical. Reflect on "normal" spoken language development!

- Persevere. At first, pointing to pictures as you speak may seem or feel awkward and silly. Keep doing it. The more you point, the more fluent and proficient you will become. Practice. Practice. Practice. It helps to learn where the pictures are! Be patient with yourself. If you feel frustrated, think about what your kids are experiencing.

- If you're not a "chatty" or "talkative" person, work at it. Your kids need you to talk about everything you are doing. They are trying to learn symbolic communication and need to hear you talking and see you pointing to those pictures as you talk. There's no such thing as too much language exposure! Talk about everything! SLP's are great resources if this is not your strength. Also, be repetitive. Kids learn through repetition.

- Encourage your kids. Especially when they start randomly pointing and they miss the pictures all together or they point to a picture that has nothing to do with the activity at hand! They ARE making progress. Acknowledge what they pointed to and model what you think they were going for or comment on what they pointed to. Keep it positive! Keep communication lines open! Don't be a communication barrier!

- Trust your instincts! If you need to reduce the number of pictures….reduce. If you need to increase…increase. If you feel it's time to try a device….try a device.
- Your students progress will be your driving force.

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