

Developing Brains- Ideas for Parenting and Education From the New Brain Science

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Self-Regulation Activities

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These ideas for activities to support self-regulation in children were generated by participants in a workshop on self-regulation at the Early Education and Family Studies Winter Symposium organized by Portland Community College with the support of Oregon AEYC on February 14, 2009. The discussion of self-regulation is by the author.

Note to Reader:

Self-regulation skills provide some of the most critical abilities for children's success in school and life. For a more detailed account self-regulation and its role in school success, see the following article on this site under **Supporting Developing Brains**: *"Self-Regulation and the Developing Brain: One of the essential skills for living and learning."*

Introduction

Self-regulation skills are a key component of the functions of the frontal lobe, the area of the brain most highly developed in humans. From a teaching perspective, the frontal lobe functions can be viewed in three categories: executive, social, and self-regulation.

Frontal Lobe Functions:

Executive functions: include voluntary attention, memory, organization, planning, and strategy selection.

Social functions: include self-awareness and awareness of others

Self-regulation skills: include paying attention, controlling hyperactive behavior, ability to stay on task, ability to alternately shift and focus attention, and inhibiting impulsive responding.

Putting these into the perspective of "goal directed behavior"

Young children begin to construct the executive functions of the prefrontal cortex through their play. When children play, especially when they play with others, they are creating neural models of what they want to play, usually with words, since language builds models. The frontal lobe, then, manipulates these models. (Goldberg 2001, 25)

Goal Directed Behavior

Take a look at the sequence of goal directed behavior in the chart below; look at the left hand column of the chart. Says Goldberg: "the prefrontal cortex plays the central role in forming goals and objectives and then in devising plans of action required to attain these goals. It selects the cognitive skills and applies them in a correct order. Finally, the prefrontal cortex is responsible for evaluating our actions as success or failure relative to our intentions." (Goldberg 2001, 24) Goal directed behavior is essential to human functioning in all areas. We use it to drive to work, cook and eat dinner, support our children in their school work, and a zillion other ways! Thus, children need to begin to practice goal directed behavior (utilizing many self-regulation skills) in the preschool years.

Goal Directed Play

If we take these steps in setting goals and objectives and apply them to play, we can see that certain types of play, in fact, teach children the essential steps and processes of goal directed behavior. I direct your attention to the right hand column, at the analogous steps in goal directed play.

Goal Directed Behavior	Goal Directed Play
1. Form goals and objectives.	1. Decide what you want to do or play.
2. Devise plans of action required to attain these goals.	2. Decide how you will play this and with whom.
3. Select the cognitive skills required to implement the plans.	3. What do you know that applies to this? Figure out what you'll need and what you'll have to do to it or with it, and what the people will do.
4. Coordinate these skills.	4. Start to organize and set it up.
5. Apply the skills in the correct order.	5. Play in a way that supports or fits with the theme or game.
6. Evaluate your actions as success or failure relative to your intentions.	6. Sustain the play in accord with the intent. or Have it end early due to it not coming together as intended.

Source: Goldberg, Elkhonon. The Executive Brain: Frontal Lobes and the Civilized Mind. New York: Oxford University Press, 2001.

With this backdrop, let's take a look at the suggestions for activities!

Organization of the Activities:

Many participants focused on **infants and toddlers** in particular. Their ideas are **presented as written** - they were so sensitively and clearly expressed! Their suggestions are presented first.

Following the infant-toddler section are suggestions for **preschoolers and young school-agers**. These ideas are **sub-grouped into some obvious categories** (more or less!).

Activities and Practices for Infants and Toddlers:

One group of people talked specifically about infants. This is what they said:

"We talked about babies - singing calming songs, holding the baby close - breathing deeply, using positive phrasing. We talked about supporting what is naturally developing in the child already regarding regulation. An example would be a child who self-soothes by holding her hands together - or a child who is most calm outdoors or looking out the window."

Someone else wrote on two "games" and a broader discussion of routines. And then multiple people made individual suggestions.

Game 1: "Tap-Tap" - supports the skills of paying attention; inhibiting movement, and regulating others.

"Children (infants) will naturally pick up 2 objects and knock them together. When caregivers acknowledge this by choosing identical objects and tapping them together, saying simply, 'tap-tap', the infant will automatically become more gentle in the knocking [of] the two objects together, copying the adult. (Inhibit movement, paying attention)

Tap-tap becomes a game and infants will take the initiative to begin the game with the expectation that adults will play. (Regulate others) Children will also Tap-tap in different ways (hard or soft) or different

places (above their head or to their side) expecting the adult to follow. (Being the regulator)"

Game 2: Another version of Tap-tap, but using rattles.

"This creates music which has more rhythm and requires paying attention and regulating self and others as we shake the rattles and sing, 'shake-shake'. Also, children will pick up a rattle and shake it and look at an adult expecting them to recognize and say, 'shake shake'. It is a greater amount of regulation as adults are only required to be vocal, not necessarily physical."

Routines: If routines are consistent, children can predict what will happen and begin participating.

Eating: Learning to wait while they watch food preparation and know when it will become available. They also learn regulation of others in that "it was the child's cue that put the activity [feeding] into motion."

Toileting: "Similar to above, but children will bring their diapers to adults to be changed (toddlers). Infants will reach into bin and pick out their diaper and hold it until time to use it."

Dressing: Have toddlers find boots for each other before going outside

Environment:

Make a matching game with photos of people that toddlers know for them to match. Don't have too many options

Games:

Bubble game for younger toddlers- blow bubbles for one specific child, Then switch to another child - (turn taking, suppressing response while waiting for your turn)

Patty Cake

Peek-a-boo

Activities and Practices for Preschool and Young School-aged Children

Some songs, games and activities were new to me, of course! So, the lists will contain some ideas with the "name" only. If a song or game has a (*) after the title, that means that the words and directions are included at the end of this article.

Some suggestions were made for games that are very common, but feature a lot of competition and sometimes not much movement or involvement of all participants. I discovered a great book recently:

Pica, Rae. Great Games for Young Children: Over 100 Games to Develop Self-Confidence, Problem-Solving Skills, and Cooperation.
Beltsville, MD: Gryphon House, 2006.

In this book, the author has "altered" common games, like "Duck, Duck, Goose," in ways that increase active involvement and reduce the focus on competition. I'm going to include these modifications by Rae Pica in the suggestions for some of these games.

Activity-Learning Centers:

Books for library corner:

The Mitten by Jan Brett

Books on Tape: listen for the sound that tells you to turn the page

Block building (goal directed play)

Cooking with children - mixing, following recipes and directions
(involves sequencing and inhibiting impulsive responding)

Puppet Show

Art Activities:

Drawing or writing to music. Stop when the music stops. Start when the music starts again.

Teacher could direct children to draw shapes ("draw circles") to the music and then stop when the music stops

Painting, coloring, pasting - learning to stay on the paper

Circle Time Activities, Games, and Finger Plays:

Calendar (sequencing, patterns, predicting)

Clap as you say each number

Have child say name of month, etc. in a voice of choice!

Carpet squares to sit on

Clap Out Words - when you encounter new words or are trying to remember a rule or guideline, clap out syllables.

You could do this with names also.

Count backwards (like from 10 for younger) - do alphabet backwards -or parts of it (like from G to A) (school-agers)

Down by the Banks (clapping game)

Going on a Bear Hunt (game)

Job Chart -

Add a job of being the "problem solver" for the day (with teacher's help)

Have a child be the "bell ringer" as a job to alert children to transitions - the child rings the bell the number of times that is their age (3 year old rings 3 times)

Plan, Do, Review

Sing songs in different voices

Talking stick (you can talk when you are holding the stick)

Yoga (memorizing body movements and form by name, controlling hyperactive behavior)

Group Games:

Duck, Duck, Goose*

Freeze Dance - play music and dance; when we stop the music we stop dancing (Greg and Steve version)

Fruit Salad Game

Mother May I? - You keep doing this until all the children reach you.

Musical Chairs Game - this one is without chairs!*

Red Light, Green Light - for players who cannot stop on time, Rae Pica suggests that you "designate them to be 'yellow lights,' which means they must walk in place until the signal to go is given again." (47)

Simon Says*

Statues

Outdoor Activities:

Bounce a ball to a rhythm - each child has a ball and the teacher claps the rhythm

Driving Lanes - draw lanes on pavement with chalk to regulate traffic

Gardening

Hop Scotch

Jump Rope

Obstacle Course

Parachute - group holds it open and moves it up and down to the chant, "Motor Boat" - Motor boat, motor boat; Go so slow! Motor boat, motor boat; Go so fast!

Songs, Singing Games, and Circle Games:

Bingo

Head Shoulders Knees and Toes (Rae Pica suggests mixing up the order of the body parts!)

Hickety Pickety Bumble Bee*

Hokey Pokey

If you're Happy and You Know It

Itsy Bitsy Spider (or Eensy Weensy)

John Jacob Jingle Hymer Schmidt

My Hat It Has Three Corners (similar to Bingo, where actions are substituted for words)

Rain Song by Steve Greg

Ten Little Horses*

There Was an Old Lady

Walking Walking*

Where is Thumbkin?

Table Games:

Memory - card game

Puzzles

Lotto games (make your own with children's pictures)

Words and Directions to Songs and Games with an * after their name:

Duck, Duck, Goose (Game)

From Rae Pica's Book

"Children stand in a circle and walk in place as the game is played. Once child, who is IT, walks around the circle, tapping the other children's shoulders and saying either 'duck' or 'goose.' When he taps someone and says 'Goose!' that person chases IT around the circle, trying to tag him. If she does tag him, he stands in her original place and she gets to be IT. If she doesn't tag him, she returns to her spot and he gets to be IT again. An important ground rule: It can't choose someone who's already be a 'goose' until everyone has had a chance." (15)

Rae Pica suggests another way to play this game. "Give children the opportunity to practice other locomotor skills performed in place by substituting the walk with a march, bounces, or light jogging." (15)

Hickety Pickety Bumble Bee (Song)

(I've done a little creative interpretation on this one!)

Hickety Pickety Bumble Bee
Won't you say your name for me?

Say it! (everyone says it)
Whisper it... (everyone whispers it)
Say it and Clap it! (everyone does so)
Say it and Stomp it! (do so)
Clap it only! (clap the syllables)

Or:

Child chooses one of the 5 ways to say their name.
Everyone says it that way.

Musical Chairs Game - without chairs! (Group Game)

This is played with animal pictures (probably laminated) that are placed on the floor in a circle (enough animals for every child).

The children walk around the circle to the music (or singing a song) and when it stops (or ends) they stand on a picture and make the sound of the animal. This is repeated.

Simon Says (game)

Rae Pica suggests the following changes to this game:

Organize the children into two groups. They can form two lines or two circles. Explain how it works (issuing commands with or without first saying: "Simon Says"). "If a child moves without Simon's 'permission,' that child simply relocates from one line or circle to the other." (39)

Ten Little Horses (Song)

Ten little horses came to town	
Five were black, five were brown	(hold up one hand, then the other)
They galloped up	(hands and voice go up)
They galloped down	(hands and voice go down)
Then they galloped out of town	(hands behind back)
Click-click, click-click, click-click	(click fingers)

Sing several times

- 1st time loud
 - 2nd time regular
 - 3rd time whisper
 - 4th time no voice (only clicks)
-

Walking, Walking (Circle Game)

Children get in a circle and move in place to what the chant says.

Walking, walking,
Hop, hop, hop!

Running, running,
Now let's stop!

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