

The power of play



Parents do well to monitor their children's activities to assure there is a balance to the day. Playtime is an important part of that balance. So let your children play ... be assured this is part of God's plan for their learning and development.

"OK, I'M THE MOMMY AND YOU'RE THE BABY. NOW WE ARE GOING TO THE STORE."

"IT'S MIGHTY MAN TO THE RESCUE!"

"LET'S GO TO THE BACKYARD AND PLAY SOME BALL."

Children utter words like these every day, and we scarcely take notice. Play is a huge part of the lives of children, but, as adults, we can easily assume play is no more than an activity that fills the empty spaces in the day. In play, children practice specific brain skills that are essential to learning: working memory, inhibitory control and cognitive flexibility. These three skills are called executive function and serve to allow learners to self-regulate.

Whoa! That's a mess of big terms! Let's play around with them, a little.

Imagine we are playing a game called the attack of the aliens. No, we are not playing this game on a video screen; we are outside in the backyard with neighbor children. Some of the children are playing the roles of the family, some are the rescue element and the rest are the killer aliens. First, we attack ...

Stop! Right there you have an example of executive function. Executive function is the way the brain develops and meets goals. It is how our brain brings order out of a chaos of neural connections. Executive function sets

the rules and monitors obedience, it watches for information and organizes it for the purposes of decision making and it predicts problems and stands ready to adapt to them. Children need to have a finely tuned executive function upon entering school, and they develop this ability through play. Now, back to the game to see how this works:

Each member has been assigned (or has developed) a role for the game. It is obvious to everyone what rules apply to each member. The family will go about its business, the aliens will attack, and the rescue crew will intervene ...

More evidence of self-regulation! You are aware of your role and the role of others in the game. You have engaged in a game with set and implicit rules that need to be obeyed. You also need to follow a plan, one that may change on a whim. Self-regulation is all that and more; it is essential for good learning. When you are learning in a classroom, you have rules to follow, a plan to carry them out, and you need to channel all of your attention and energy into getting this done, just like in our game.

Pretend you are the baby in the family. You can't talk yet, but you have ways of directing action. You are the first to see the aliens attack; you want to warn your family. But how?

This is a great example of inhibitory control. Our senses are continually being aroused, but if we are in a constant state of awareness about everything, we may focus on nothing. When you play a game that forces you to follow a particular role, you must learn to hold back on some actions in favor of others. If you play soccer or basketball, you may need to hold back on the desire to score in order to pass the ball to someone who has a better chance of winning the points your team wants. In school, children must be able to inhibit, or repress, some actions (running around, blurting out or turning to look at every noise) in favor of concentrating on schoolwork. Learning this takes practice, and the best practice happens during playtime.

The aliens have attacked, and the family has a plan to escape out the back door. But wait! The back door is blocked by the alien spaceship. What do we do now?

Cognitive flexibility is another aspect of executive function. This is the ability to assess the situation and change the plan, when necessary. Suppose you are working on a math problem involving multiplication. Repeated tries do not give an answer that makes sense. When you re-read the problem, you realize you should be dividing instead. This is cognitive flexibility, and it is essential to using the skills that are learned.

The family changes plan to escape through the trees. The mother in the family is almost to safety when she remembers the baby can't run. She returns to the playhouse and saves the infant. Once in the trees, the family knows they are safe as the rescue crew has arrived and are distracting



the alien mob.

Several good things are happening here. Not only do we see cognitive flexibility, but we also see evidence of prediction and working memory. The family team needed to predict what would happen to know that the trees would be the safest place to hide. The mother needed to hold quite a bit of information in her working memory to realize what her character needed to do. Working memory, sometimes called short-term memory, is how your brain holds onto bits of information while you are working on a problem. Students with large working memories learn faster and solve problems easier. They also perform better on tests. Working memories can be developed and improved.

Play develops executive function, which is the backbone of learning. Working memory and inhibitory control each predict math competence in preschoolers and are important for learning to read. It is essential for our children to play.

Parents can do many things to help their children succeed in school. Providing them with a physically and emotionally healthy family life is a big part of that. We also can give our children learning-rich experiences: trips to museums, family building projects, baking sessions and music lessons.



Computers and books also contribute to learning.

Parents do well to monitor their children's activities to assure there is a balance to the day. Playtime is an important part of that balance, both at home and at school. It is comforting to know that math and reading classes are supported and enhanced by the playtime that comes before and after. So let your children play; be assured that this is part of God's plan for their learning and development. Better yet, find some time to join them. You never know what benefits your brain may realize from a good snowball fight or a tricky board game.

For Discussion:

- ▶ What were your favorite games as a child?
- ▶ Have you played these games with your children?
- ▶ How much play time does your child have each day?
- ▶ How much play time do you have each day?

For Further Study:

- ▶ Family games:
<http://fun.familyeducation.com/games/33076.html>