

THE BENEFITS OF LEARNING TO JUGGLE FOR CHILDREN

Written by Dave Finnigan

Fitness, Motor Skills, Rhythm, Balance, Coordination Benefits . . .

Students can start acquiring pre-juggling skills in pre-school and kindergarten by learning to toss and catch one big, colorful, slow-moving nylon scarf. Once tossing and catching becomes routine, you can use one nylon scarf anywhere that you would normally use a ball or beanbag for most games and many individual challenges. Just think of the scarf as a "ball with training wheels."

Scarf juggling and scarf play progresses in a step-by-step manner from one, to two, and on to three. Scarf play and scarf juggling requires big, flowing movements. **Children get a great cardio-vascular and pulmonary work-out when they juggle scarves, exercising the big muscles close to the head and close to the heart.** They will find scarf juggling to be a great deal of work and lots of fun at the same time. Once they move on to beanbags or other faster moving equipment, they get exercise not only from tossing, but from bending over to pick up errant objects as well. Once a student can juggle continuously, they can "workout" with heavy or bulky objects such as heavyweight beanbags, basketballs, or other items which provide strenuous exercise while they improve focus and dexterity.

Because all of this tossing and catching activity can be done to music, you can use different types of music to help children acquire a sense of rhythm and a natural "beat." By working together, students can participate in a group activity requiring concentration and attention to task and reinforcing rhythm.

Students learn balance at the same time that they learn juggling. It is vital to give children opportunities to work equally with their dominant and nondominant hands, and juggling does this automatically. Crossing the mid line and tracking are inherent in all of the activities from the very start. Bilaterality is vital to continuous juggling. Jugglers become ambidextrous to a large extent and will be beneficial to students who participate in other active sports.

As juggling improves, tossing and catching skills and overall eye-hand abilities also improve. **Students who learn to juggle find other skills easier to acquire, partially because of improved reflexes and eye-hand coordination, and partially because they have learned how to learn.** They acquire their juggling skills step-by-step and this model can help them understand how other skills are acquired.

Behavioral, Social, Attitudinal Benefits . . .

A classroom based juggling program give teachers a great deal of added control over children's behavior. Once the juggling break is instituted, it can become a powerful tool for improving student attention to task and classroom deportment. **Kinesthetic and physically active learners will be especially eager for juggling breaks.** This group is likely to include those students who present the biggest behavioral problems. These students also may excel in juggling, where they may not excel academically. They need movement breaks and will benefit most from juggling.

Juggling gives students a way to communicate with one another through cooperative work on group tasks, by sharing skills, and by monitoring each others advancement. They gain attention from family and friends when they "show off" their skills and they gain respect and make new friends when they teach those skills to others.

As one of the teachers at Hazel Dell School said, "We have a lot of new kids coming into this building. They look at this juggling program, get involved in it, and have friends right away. It is not a gimmick, it's just a marvelous way to improve self-esteem. Because of this program we have a great group of kids we can send off to middle school ..."

Students who understand the step-by-step learning system used in juggling do well in all their other subjects because they are not intimidated. They improve their attitude toward learning new subjects and acquiring new skills. They do not hesitate to accept challenges, just as they accepted the challenge of learning to juggle. **This attitude of confidence and acceptance of risk-taking gives students who are involved in a juggling program a decided edge over those who are not.**

When students can get up and perform successfully for adults or other students, self-esteem soars. **The key to enhanced self-esteem is the realization of one's self-worth, and nothing brings this home to kids better than praise and applause from peers and adults.** One facet of the juggling break program is that every student gets to perform constantly for peers and parents. In this program the students are offered the opportunity to organize and present juggling performances which can enhance the stage presence of the students, the cohesiveness of the classroom, and the spirit of the school. **Improved self-concept leads to more effort in both motor and intellectual endeavors, creating a self-reinforcing system.**

Creativity, Problem Solving Benefits . . .

Students see immediately that juggling is like a video game with innumerable levels, but the juggler is the "Sonic Hedgehog" or the "Mario Brother." He or she takes all of the spills (drops) and gets to start over, again and again. You start with a very enticing and perplexing challenge, to learn to keep three objects moving with only two hands. You solve that challenge step-by-step with many drops along the way. You reaffirm what video games already taught you, that a drop (game over) is a chance to pick up and try again (start over). Jugglers know that "a drop is a sign of progress," and that if you are persistent and keep practicing, you will eventually get to the next level, where you will get to start over again. Practice is the key to success. **Jugglers and video game players know what many adults have forgotten . . . anything worth doing is worth doing poorly at first until you get good.**

Because juggling is not just one pattern, but literally an infinite number of patterns, it is like a video game with an infinite number of levels. Also these same patterns can be presented with a variety of equipment . . . scarves, beanbags, balls, rings, clubs, and just about anything you can throw up in the air and catch. Students continually challenge one another, and through juggling videos, books, juggling get-togethers, and the Internet, your young juggler can continually progress and improve. Also, partner juggling requires team and small group problem solving. If your students decide to present a show to others, they will meet the challenges of integrating juggling skill with stagecraft, music, and presentation.

When you first learn to juggle you need to count, to worry about drops, to verbalize, and to see the specific steps of a larger pattern . . . all "left brain" skills. However, when you have learned to juggle, you no longer need to count, worry, or verbalize to yourself every action. You can get lost in the "flow of the moment," in the rhythmic and timeless "right brain." Once you can juggle and carry on a conversation or speak unique lines at the same time, both sides of the brain are working. Then both sides of the brain are working and the synergy of right and left brains working together can be tapped. Brain research has not yet focused on this area but the synapses must be firing and the corpus callosum must be highly energized when both sides of the body and both sides of the brain are working in concert.

Juggling provides a series of sequential problems that require the student to calm down, pay attention, listen analytically, observe critically, focus on one activity at a time, plan a learning strategy, go step-by-step, stay on task, screen out distractions, and manage their muscles to act appropriately, and with the desired results using successive approximations. They will persevere through a series of minor failures (drops), analyze final results of the process, and incorporate the newly learned activities into a larger pattern of complex learned activities that can be demonstrated and taught to others. It is a limitless, cumulative, branching model which teaches creative problem solving through direct experience and enhances creativity by offering intrinsic and extrinsic reinforcement with every gain in skill!

Learning Styles and Stimulation of the Learning Process . . .

Schools are increasingly attuned to the fact that students have numerous and quite different learning styles; yet many teachers find it difficult to work with diverse styles, particularly those most distant from their own. It is interesting that the learning styles that are most difficult for highly verbal and "desk oriented" teachers to work with in the traditional classroom may be the ones that are most easily involved in a juggling program. Spatial learners love to visualize the juggling patterns. They learn well with videos and love to puzzle through juggling patterns using the "mind's eye." Musical learners love the rhythmic nature of juggling. Bodily and kinesthetic learners really appreciate the opportunity to get up and move around in an organized way, to interact with space and process knowledge through bodily sensations. Interpersonal learners love the opportunities for sharing, comparing, relating, and cooperating that juggling and eventual performing affords. **Even intra personal learners can get involved in juggling through working alone, focusing on their own goals, and pursuing their own original interests at their own pace and in their own space.**

It is certainly noteworthy that logical and mathematical learners have long been associated with juggling. Scientists and researchers who work with computers and particularly mathematicians have had a reputation of dominating the ranks of jugglers. A juggling festival is usually loaded with participants with advanced scientific degrees. Bell Labs, Microsoft, MIT, Stanford, and Apple Corporation all have long standing juggling clubs. Even the Internet has shown a massive interest in juggling. Already, over 55,000 people have accessed the JUGGLING INFORMATION SERVICE on the Internet. This is undoubtedly due to the experimental nature of the art, where practitioners must figure out patterns and relationships, work with numerical concepts, ask questions, explore, and logically solve complex problems. Even linguistic learners can be involved in juggling if they meet it early enough, before they become too sedentary. There is plenty of grist for verbal mills in presenting or chronicling the art. Juggling to poetry and telling a

story with juggling may be the methods by which these "word players" can become involved.

When you turn thirty students loose in a classroom setting with ninety objects (or more) to throw around, it might seem to be risky, however the contrary is true. **Juggling movements are all contained and very focused.** Students need some self-discipline to properly participate and soon they learn that the process improves this ability to control themselves. **Focused behavior is automatically reinforced by success.** The step-by-step paradigm used in learning to juggle can be used by the teacher as a model for learning any skill or body of discipline that requires this same strategy.

Academic Benefits . . .

Research has shown that there is a **direct relationship between the hand-eye coordination learned through juggling and the ability to read, write, and reason.** Academic connections are strongly indicated between juggling on the one hand and reading, math, handwriting, and other subject areas on the other. The most persuasive evidence for an academic connection so far comes from the work of Dr. Carole E. Smith, Physical Education Specialist, Lackland City Elementary School, 101 Dumont, San Antonio TX 78251 (210/674-0261). Dr. Smith's work shows that learning to juggle can improve both handwriting and reading skills. Her research merely reinforces the work of Maria Montessori and Jean Piaget, both of whom hypothesized that gross motor movements and tactile sensation increased cognitive learning. If every student learns to juggle in primary grades and they are constantly reinforced to improve their juggling skills, academic performance should improve accordingly.

Research also shows that if students get up and move around energetically on a regular basis, they return to academic tasks refreshed and will learn better as a result. Using juggling as the central theme, a program of classroom fitness and coordination breaks can be set up and run by the students themselves. Because each student works at their own pace, with their own equipment, and in an environment which reinforces effort and accomplishment, the activity is completely safe and non-disruptive. **Juggling is like having a "right brain break in a left brain day."** It is low-impact aerobics that rhythmically and energetically exercises the big muscles close to the head and heart, pumping blood to the brain.

A large percentage of kids come to school as "couch potatoes" and the typical classroom setting makes "desk potatoes" out of them. By creating a lifeline between the classroom and the activity center (gym or playground), the teacher can see the student as a whole person, not simply as an academic entity. Skills can be learned that will be practiced eagerly every day at school and every evening and weekend at home. **It is a lifelong learning activity.** This set of activities does not involve team sports or competitive games, but individual skill development and cooperative learning activities which are developed by students themselves in a self-paced manner.

If students can become involved in the teaching and evaluation process, they learn a great deal more than if they are simply taught a skill or subject by a teacher. The juggling program is designed to be initiated by a teacher but administered by students. **It is not necessary that the teacher even know how to juggle, although that will happen in almost every case regardless of the teacher's previous experience with physical activity.** There are several "how-to" videos that can be played where the students can

learn right along with the kids on the video. This peer teaching program can include a goal setting and promotion system whereby students evaluate one another for advancement in a fun and casual way. There is no negative stigma attached to failure in these evaluation activities. Conversely, there is a great deal of positive reinforcement inherent in working together, persevering, and eventually accomplishing the goal. Discipline and regular practice are natural outcomes of the process, just as they are when a group of friends challenges one another to learn to skateboard, toss a Frisbee, play Hacky-Sack or shoot baskets. Learning to juggle uses a step-by-step self-regulated problem solving format with automatic reinforcement at every level of accomplishment. **There are no losers in this process . . . only winners!**

Because you can only learn to juggle step-by-step, **juggling is a great model for learning in general.** Juggling skills are cumulative and students can see and appreciate their improvement as well as the improvement of others right from the first lesson. It is the sort of activity that reinforces the participant immediately for practice where the "payback" is directly proportional to the amount and quality of practice. In this regard, juggling practice is just like practicing reading, spelling, or math. This cumulative step-by-step process can be repeatedly pointed out to the students.

Teachers may want to **interrelate juggling and academics through projects such as the following . .**

1. Reading or book report projects on the circus, history of juggling, or vaudeville.
2. Keeping a diary of accomplishments and a practice record which details frustrations and accomplishments.
3. Sending your student jugglers to perform at another nearby school and teach them to juggle.
4. Sending your student jugglers to perform at a district or state education conference.
5. Joining the International Jugglers' Association as a class (1-800/367-0160).
6. Taking a field trip to the circus and arrange to go backstage to meet the jugglers.
7. Holding a JUGGLE-A -THON in place of the annual WALK-A-THON.
8. Playing juggling games on your annual field day.
9. Having a class or individual project of producing a "How-To" video tape of learning to do some activity in a step-by-step sequence.

Why not conduct your own research on the relationship between juggling and reading, behavioral patterns, or other academics? See if reading scores do rise along with ability to focus and to stay on task. You should find a drop in disruptive behaviors and you will be surprised to find that your best jugglers are not necessarily your most athletic students.

And you thought juggling was something you only watched at the circus