

# When You Need Your Hands to Help...

## Facilitation Guidelines for Staff Working With Students with Physical Challenges

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Being able to facilitate a student's movement is a skill and an art. A single workshop or in-service isn't sufficient to learn the skill or develop the art. It is a process that takes careful observation and evaluation of the impact of how our touch influences another's nervous system. Only through repeated practice, in a variety of situations, can you learn how to move more efficiently and, through that movement, help your students learn how to better control their movement. Doing effective facilitation requires a good knowledge of basic teaching skills. Using motivation effectively, being clear and concise, and knowing what it is you want to accomplish are every bit as important (if not more so), as where to put your hands.

As a physical therapist, I have a strong interest in movement. I would like to propose that the only way we have of expressing ourselves, in our present day world, is through movement (assuming you don't believe in telepathy). Every action we take in our lives requires the use of muscles. Even the slightest change in facial expression requires the use of several of the small muscles of the face. It is interesting to note that before a particular movement begins, many muscles in the spine, trunk and legs have already started to contract to provide the necessary stability to allow that movement to occur. If the goal is to pick up a cup, only after this stabilization occurs, can the muscles needed to perform the actual task, come into play. We do this thousands of times a day without thinking and often without even realizing that it is happening. Anticipation plays a major role in all movement.

### **My Philosophy of Facilitation**

To "facilitate" is defined as: "To free from difficulties or obstacles, to aid, to assist" (Webster). The goal with all facilitation is to help a student achieve as much independence as possible. Motor problems *always* interfere with efficiency. When there is a motor deficit, more muscles come into play than need to, or their action is poorly coordinated with other muscles. A student with hypotonia, spasticity, athetosis or ataxia (types of cerebral palsy) has one of the hardest bodies to control due to the strong influence of the primitive reflexes. By learning where to place your hands (the control points), and how to fade your assistance (graduated guidance), you can help the student feel how the movement should happen. I believe that when the proper amount and type of support is provided, (what I refer to as facilitation), without taking over the movement itself (which is often what hand-over-hand assistance turns into), the brain has the best chance to learn to replicate the movement. This makes it more possible that the student will be able to re-create the movement given practice and time. I also believe that we

should prevent “wrong” movements as much as possible so that there are more opportunities for the “right” sensory-motor loops to be reinforced.

Doing something the wrong (or less efficient) way several times only reinforces the inappropriate/abnormal patterns, thereby requiring a great deal of cortical override to correct it. Students with motor problems have damaged cortical override to begin with. By using your own body, you can model how a movement should happen, and then reinforce appropriate attempts as well as block inappropriate movements. Many of our students need many repetitions to learn a particular movement. Sometimes, their poor memory skills or fluctuations in their nervous system make it difficult to remember or reproduce the same performance from day to day or even minute to minute. The more practiced the motor pattern is, the better the chance that the student will be able to reproduce it. I encourage you to develop the attitude that every time you interact with or touch a student, is an opportunity to teach. Being aware of how you move can have a major impact in how quickly your student learns.

A wonderful thing about facilitation, especially facilitation provided with a gentle touch, is that it is a positive tool. It provides guidance through the movement rather than correction of movement. Every time you touch someone, using good technique and good intention, you are teaching that touch can be a good thing. Think of how many times our students have been touched in anger, frustration, or even indifference. How many times have they been pulled or pushed around. No wonder many resist our “help”. Facilitation is a tool, a skill and even an art when done well. In my years of practice, I have found it to be my most powerful ally to helping kids learn.

## **The Power of Motivation**

It’s important to remember that people do things for a reason. It is very important to ask the question “What, exactly, is the point of this?”, from the student’s point of view. Wanting to do something helps “turn on” the brain thereby increasing learning potential dramatically. Making your expectations clear and concise can increase student performance significantly.

### **A: Choice**

Providing choice is one of the most effective ways of tapping into motivation. If there is a choice provided then the student has some say over the task. When providing choices to students who are non-verbal it is critical that we provide them with a way to indicate that none of the choices provided are acceptable. This is not to say that their choice will always be honored but they should always have the right to express it.

### **B: Meaning**

The more meaningful the activity is to the student, the better the changes are that they will want to engage in the task. Presenting a slideshow of family or friends can be much more motivating than showing a slideshow of past presidents. If the goal is to engage the student, then we must be mindful of what activities they are interested in and use those to create interest.

## **C: Purpose**

Understanding the purpose of a particular activity can go a long way towards improving a student's willingness to spend some of their hard earned energy on it. Understanding that by practicing activating his head switches he may develop the ability to type messages to his friends makes the task have a purpose that is meaningful to the student.

## **Independence versus Production**

This is an area of study in itself. It is a very fine balancing act to provide enough opportunities for independence as well as to get the work done that needs to be done. Cindy Cavanagh has developed a great set of materials called: *Get your hands off me! I can do it myself!* These materials help the reader develop a plan for how to increase and support independence.

Joy Zabala has developed a wonderful framework called the *SETT Framework* that can help team members determine when and where assistive technology may be used to increase participation and/or independence. This framework helps define the task within a particular environment given a particular student's abilities and challenges.

There are times in everyone's day where the focus is just on getting the immediate task done (i.e. making supper, doing laundry, writing down an assignment, etc...) There are other times when the task may be geared towards developing more refined skills (improving basketball shot, getting organized, learning the elements of the periodic table etc...). It is even more important that teams supporting students with motor output difficulties (including the student him/herself) be able to define which tasks just need to get done versus which ones should be done towards a greater purpose. This process should then guide the supports and assistance provided.

When the decision is made that physical assistance is a helpful intervention during a particular task, there are guidelines that should then be applied. If the student is expected learn to do the movement independently, our support (including physical assistance, motivation and proper equipment/positioning) has to be carefully planned and implemented.

## **General Rules of Facilitation**

### **1: Use Proper Positioning**

Proper body alignment is *extremely* important for any functional position. Proper alignment may result in the student being more comfortable, less likely to go into muscle spasm, and less likely to get stuck in positions of abnormal muscle tone. Initially, it may take some time for a student to get used to a new, more aligned position. Gradual introduction to these new positions is usually the best way to support reluctant students.

Train yourself to look carefully every time you help position a student. If you train yourself to look, you'll learn to see. An invaluable resource can be found in Chapter 2: *Positioning the Child for Viable Switch Access* in Goossens' and Crains book: *Utilizing Switch Interfaces With Children Who Are Severely Physically Challenged*.

**A: Proper Alignment Checklist**

1. pelvis in good position with feet supported
2. arm support at right height
3. equipment at eye level (check neck position)
4. check wrist position

**B: Stabilizing Surfaces**

Providing a stable surface to work on can lead to dramatic improvements in functional movement. One of my favorite materials is rug grip (can be purchased at dollar stores or most department stores). There are several different types that provide varying amounts of stabilization. I've used it for stabilizing arms, feet, a variety of materials, switches, equipment, etc....

**C: Easel Surfaces**

The more I use easel surfaces the more I believe that we should all be using them much of the time. Having materials placed on an easel surface minimizes the need to shift vision from the materials to the computer. By minimizing visual shift you can often minimize the abnormal muscle tone shift that can happen with head movement.

Easels also help work to align the head and trunk in a more functional pattern leading to less neck strain.

It can be very helpful to increase the angle of a keyboard to improve a student's ability to see the keys. This combined with keyboard stickers to increase the contrast of the keys can often provide enough support to increase access for a number of students.

Please see my handout: *Inexpensive Classroom Adaptations and Modifications* for more detail regarding modifying the environment.

**D: Position of Facilitator or Equipment**

1. be aware of primitive reflexes and their influence
2. be aware of position of possible distracters

**2. Use Good Body Mechanics**

Proper body mechanics should be employed at all times. Proper body mechanics allow you to maintain light sustained pressure. If you are not comfortable, your muscle tension will gradually increase and be transmitted to the student. If you are trying to do more than you can, if you are unsure of what you are doing, or if you are under a lot of emotional or physical stress, your movements are more likely to be quick and jerky, thus endangering yourself as well as any student you may touch. If you have any doubt

about your ability to move a student or interact in any physical means, then it is your responsibility to get the help you need.

THINK before making ANY physical contact with a student.

**A: Use a Staggered Stance/ Keep Center of Gravity Close**

In general, it is best to be in a position of balance. This can be best achieved by keeping one foot slightly in front of the other. I call this a staggered stance. Bend your knees, keep your back straight and keep your muscles relaxed. You want your center of gravity (somewhere around your navel) to be as close to where your hands are as able. The closer you are to the center of gravity of the area you are facilitating, the more control you have. You should facilitate through the hands, or other distal body parts, only when you have sufficient control of the more central areas of the body.

**B: Weight Shifting is Part of Every Movement**

If you want to be an effective facilitator, you must learn to use your own body effectively. If you are facilitating weight shifting, you must be weight-shifting yourself, even if your movement is more subtle than the one you are facilitating in the student. When facilitating movement you should provide the support, encouragement and guidance *needed to succeed*, but the student should be doing the movement (as much as possible).

### **3. How You Touch Matters: Tune In**

If you need to provide physical facilitation, the first step, after you've asked permission and demonstrated respect, is to tune in your touch. No one should touch another human being without first requesting permission. This may take anywhere from a second of eye contact to minutes of introducing yourself. How you *approach* a student matters.

#### **Approach Guidelines**

**A: Approach on Diagonal**

To minimize the chance of setting up a defensive response it is helpful to approach from an angle rather than dead on. Your shoulders should be relaxed and you should be smiling and maintaining eye contact. Your approach should be predictable and slow.

**B: Be at the same level as the student or lower.**

This can be especially important if a student is in a wheelchair or seated on the floor. Towering over someone is almost always perceived as threatening unless there is a trust relationship between the person approaching and the student. Many of the techniques taught in non-violent intervention training apply here as well. The goal is to minimize the chance of triggering a flight or fight reaction.

**C: Your mind should be on the student**

When you are coming into physical contact with another person is not the time to be discussing last night's dinner or the great deal at the local grocery store. Our students who are non-verbal are most often the recipients of this type of behavior. In essence, what you are saying to the student is that they are not a human being but rather a *thing* to be moved. Imagine yourself at a holiday party and imagine how you would approach anyone at the party. I bet you would not be touching one person and talking to another person at the same time (unless the punch was spiked, of course).

#### **D: Use Voice and Body Cues to Modify Level of Alertness**

Melodic, predictable, soft-spoken voice and movements tend to calm whereas quick, jerky, loud voice and movements tend to increase alertness. See the handout *Centering the Child* for more specifics.

#### **E: What you think matters**

One of my favorite ways of illustrating this point is by using a pendulum. If you hold the pendulum in one hand about an inch above the other hand and say, "Yes" it usually moves in a clockwise pattern (for most people). When you say, "Stop" the pendulum stops much sooner than would naturally happen if energy were not being applied. When you say "No" the pendulum rotates in a counter-clockwise pattern for most people. If you say "Maybe" the pendulum swings back and forth. How strongly the pendulum responds depends on a number of factors that I am just now beginning to explore. Some people take many trials before they can make this happen and others have it happen immediately. It is possible to influence this with facilitation. I don't claim to understand the whys yet, but I do know that it happens. The point then, is that what you think does relay some tangible, measurable message to the individual you are touching.

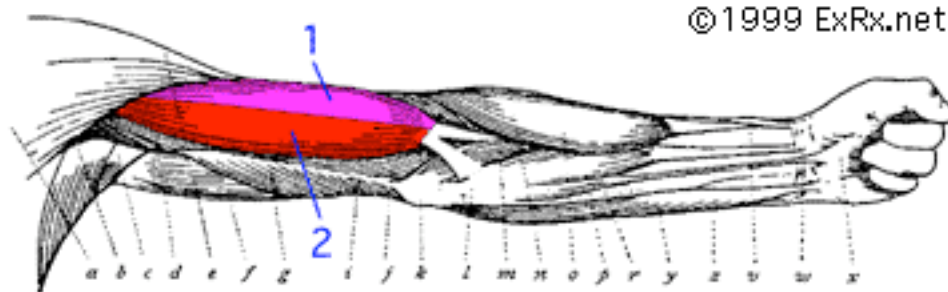
### **4. Use Key Points of Control**

When facilitating a student's movement, use key points of control. Never grab, push or pull. If possible (which is most of the time in my experience), your hands should be open and your fingertips relaxed. If you have to grip tightly, your hands and/or body are in the wrong place. I often use the verbal prompt of "feel where I'm going and go with me" when guiding a student's movement.

#### **Key Point Techniques and Tricks**

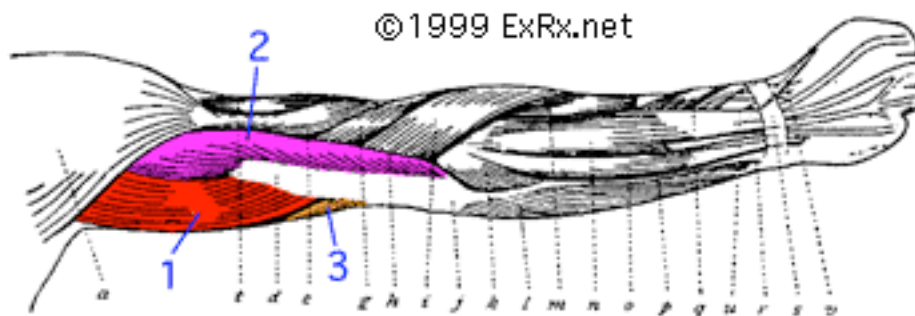
##### **A: Where to touch**

1: Touching over the muscle belly of a particular muscle facilitates that muscle's contraction. For example, touching over the area of the biceps muscle in the arm (the one you flex to show how strong you are) will tend to "turn off" the elbow extensors thereby helping you bend an arm stiff in extension.



<http://www.exrx.net/Muscles/BicepsBrachii.html>

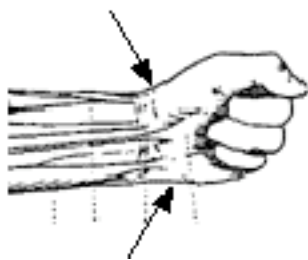
Biceps Muscle or arm flexor



<http://www.exrx.net/Muscles/TricepsBrachii.html>

Triceps muscle or arm extensor

2: Supporting over body prominences (like the bumps on either side of the wrist), tends to be neutral, neither increasing nor decreasing the tendency of muscles to contract.



**B: Be Aware That...**

Using a thumbs-up position of the hand (external rotation of the shoulder with extension of the elbow) tends to unlock an arm stuck into an asymmetrical tonic neck position.

**C: Amount of Pressure**

In general, I am finding that slow, sustained, gentle pressure works the best when guiding movement. Work with your PT and/or OT as to how to do these techniques. Always work to align the student's body as normally as possible. Plan to work on each

specific area for at least 2-5 minutes when trying to get release of tight tissues. Check how much range of movement you get before you do anything and note how much you have when you finish. Keep in close contact with the PT/OT regarding these types of procedures.

## **5. Movement Support**

### **A: Hand-Under-Hand Assistance**

*Hand-Under-Hand* assistance is a term I use to describe using support and guidance to assist movement rather than the more commonly used Hand-Over-Hand assistance where the movement is driver by the person “helping” rather than the student. Hand-Under-Hand assistance also assumes that key points of control are being used and faded as soon as possible during the movement.

All movements should be done slowly, using as little force as possible. The harder you push or pull, the more the body tends to resist that push or pull. This is also called body resistance, (and is true for all of us). Most movements are facilitated using some rotation. This means that your hands are moving in opposite directions, or that one hand moves while the other stabilizes. You should never feel like you are pushing or pulling when facilitating a movement.

### **B: Grading the Amount of Support**

*Always* look to decrease the amount of support and guidance you are giving. If you lose control, revert back to whatever level of support is necessary to regain success. There should be constant *interaction!* You should always be monitoring the amount of input and support you are giving as well as adjusting it, based on what is happening at any one time.

### **C: Fading Assistance**

The goal with all facilitation is that it helps the student learn how to recreate the movement pattern independently. This is not always possible depending on the motor deficits that the individual has to contend with. It is critical that there be a plan to decrease the amount of assistance based on the student’s ability to take over the movement. Sometimes this can happen within a single session; at other times it may take months. Sometimes a student may be able to do a motor action on one day and be unable to do the same action on another day or even an hour or so later.

### **D: Using Blocking**

Facilitation is a combination of guiding movements that you are looking for and blocking movements that are interfering with functional movement. If you can’t support a student’s movement by using your hands to guide, then move to block the interfering movements. “Tug-of-War” seldom works and may cause shoulder/elbow, hip/knee damage to the student or back damage to you. Also, remember that restraint and physical

assistance against a student's will is inappropriate and usually has to be supported by a behavioral plan if it happens more than one time.

### **E: Know How to Deal With Abnormal Muscle Tone**

When dealing with any kind of muscle spasm, support the limb or area without providing resistance to the spasm. Most students who have persistent problems with muscle spasms or spasticity have predictable spasms with predictable triggering stimuli. There are specific techniques to help decrease that muscle tension. All staff working with these students should be trained as to how and when to use these techniques. Some of these techniques include, Neurodevelopmental Therapy Techniques (NDT), use of the Quieting Reflex, Peripheral Neuromuscular Facilitation Techniques (PNF) eliciting Still Points (Craniosacral Therapy Techniques), Strain/Counterstrain Techniques, and a variety of manual therapy techniques such as myofascial release techniques can all be useful in decreasing muscle spasm. There are also a variety of techniques and strategies to increase muscle tone. Check with your OTs and PTs for more information about these and other sensory integration techniques. In the resource section there are several websites where you can get more information regarding these approaches.

## **6. Balancing Cognitive and Sensory/Motor Output**

A problem continually encountered with students with motor deficits is inconsistency of response. I often joke that the most consistent thing about students with cerebral palsy is their inconsistency. This has to be planned for with constant adjustments made between the cognitive load and the motor load.

## **7. Balancing Independence with Productivity**

There is a very good discussion about matching the task to the student at [www.fhs.mcmaster.ca/canchild](http://www.fhs.mcmaster.ca/canchild).

The strategies presented in this article are targeted for students with Developmental Coordination Disorder (DCD) and the authors (Cheryl Missiuna and Nancy Pollock) provide a great list of suggestions that can be used for a variety of students. In my experience, many of these suggestions also apply to students with more significant motor deficits.

Joy Zabala has created a powerful tool called The SETT Framework (<http://www.atto.buffalo.edu/registered/ATBasics/Foundation/Assessment/index.php>) that can help guide teams in making decisions about how to use technology to assist individuals in daily tasks. Being able to define the specific *task* at any one time can be extremely helpful in deciding how much assistance to give. For example, if the task is to improve head control while working on the computer using head switches, then the cognitive task presented by the computer program should be an easy one. If the focus is to learn where to put punctuation marks in a paragraph and this skill is not an easy one for the student, the motor access method should have more built in support.

## 8. ASK for Help

When in doubt, ASK! You should never do an activity or attempt to put a student into a position that you are not comfortable with (and sometimes even if you are comfortable). Being uncomfortable is not a valid excuse for not doing something. Rather, it should act as a prompt to seek out the help you need to become comfortable. Using a team approach is absolutely necessary when working with students with significant motor deficits. These kids need to move and they need to move the right way. We cannot deny a student what he or she needs because we are not knowledgeable enough. We must take the responsibility to learn what we need to know to become more effective educators.

Websites to find out more about Neurodevelopmental Therapy Techniques:

[www.ndta.org](http://www.ndta.org)

[www.abndta.asn.au](http://www.abndta.asn.au)

[www.bobath.org.uk](http://www.bobath.org.uk)

[home.iprimus.com.au/rboon/NeurodevelopmentalTherapy.htm](http://home.iprimus.com.au/rboon/NeurodevelopmentalTherapy.htm)

## The Person Inside the Body

Facilitating and developing movement skills does more than simply improve physical functioning and health. Helping an individual to develop more independence or more control over their own movement helps to develop self-esteem and an attitude of “I can”. Students with significant physical disabilities can easily fall into the trap of Learned Helplessness. Linda Burkhart has a great article on her website ([www.lburhkart.com](http://www.lburhkart.com)) addressing this problem. Keep in mind that students with motor output deficits fail frequently when they attempt to do things that we don’t even have to think about. We can help them experience success by using careful placement of our hands, giving them access to motivating activities, and by giving gentle support and encouragement. Every individual needs to feel that (s)he has some control over her/his life. I would encourage anyone working with physically challenged students to read Norman Kunc’s work ([www.normemmma.com](http://www.normemmma.com)). He is an individual with cerebral palsy who has written extensively about how it felt to be “treated” by therapists and educators. By helping a person learn how to move more effectively, you are increasing the probability that (s)he will develop to their maximum potential in other areas as well. Touch with respect. Remember, this is a skill and an art. You must practice, look for feedback and be willing to change, to get good at it.

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Exercise Instruction & Kinesiology web page [www.exrx.net](http://www.exrx.net)

Web-Based Resources:

<http://home.iprimus.com.au/rboon/NeurodevelopmentalTherapy.htm>

<http://www.fernridgepress.com/autism.html>

<http://www.ndta.org/>

<http://www.abndta.asn.au/>

<http://www.bobath.org.uk/concept.html>