



# INSTRUCTOR CERTIFICATION CURRICULUM

A GUIDE TO MAXIMIZING SKILL  
DEVELOPMENT PRODUCTIVITY  
IN A COMPETITIVE EDGE  
HOCKEY OFF-ICE SETTING

# A Note Regarding Potential Confusion

Many of the following slides will be somewhat confusing without actually seeing the training in action. This curriculum is not meant to be a stand-alone guide to instructing in our program, but is meant to work with in-facility experience. So, do not worry if some of the following is hard to understand at first. It will make sense once you have more experience with the program.



# Competitive Edge Open and Close Procedures

# Opening Procedure

(These procedures are not meant to be memorized. They are to be used for reference when needed.)

1. If opening the place, find the lock box out front of the building and enter code 1,5,6,0 to get the key for the main door
2. Use key to gain access to the lobby
3. Find the allen wrench on the certificate of occupancy placard near the front door and use it to put the front door into the open position
4. Turn on the lights for the front area by finding the electric panel that is between the two rinks near the bathroom
5. Turn on the rink area lights in the electric panel that is back in the zam room area
6. Unlock the rink area using the lockbox on the half wall upstairs using code 3,4,7,9
7. Get the Flywheel up and running by turning it on and entering its code using the secret button on the touch screen (its code is 1,0,2,2,5)
8. Get the Treadmill up and running by turning it on and logging in with login "trainer1" and password 1,1,1,1. Remember to activate the angle change system using the secret button on the "timer" part of the screen (hold it down for 15 seconds).
9. Mentally prepare for a blitz of kids and parents

# Closing Procedure

1. Check the facility and parking lot for remaining inhabitants to determine if you indeed are the one who must close up
2. Check hallway, lounges, and bathrooms for messes, if one is found clean it up if at all possible
3. Turn off lights for rink area (electric panel in the zam room)
4. Front area lights (electric panel in the rink area near the bathroom that is between the two rinks)
5. Turn off all locker room lights
6. Turn off the TVs in the lobby
7. Find the Allen wrench on the certificate of occupancy placard next to the front door and use it to put the front door into the locked position.
8. Walk out and check that it locked.
9. Enjoy the rest of the night

# First Aid / Emergency Situations

In a situation where we need to execute a First Aid procedure or to work through a developing emergency, locate the manager on duty (office or Zam Room typically) and alert them to the situation. They will know our emergency procedures and the location of first-aid kits. The main kit is in the main office of Hat Trick.

If no manager can be found...

- Use your first aid knowledge

or

- Use your phone to search for the local Urgent Care number or call 911 if appropriate.



# General Concepts

Ideas and habits that benefit any type  
of skill development environment

# Safety

- Safety is the primary issue that instructors should have on their mind in all training stations until safety is assured so they can shift their attention to the training.
- This pertains to...
  - Orderliness of players who are resting during treadmill and flywheel training
  - Utilizing restraint in the challenge level used during flywheel and treadmill training so that players aren't ready don't wind up falling repeatedly
  - Player behavior at all stations (no high-sticking, no fighting, etc.)
  - Required Protective Equipment must be worn at all times
- Instructors will be required to discipline kids who are consistently behaving in an unsafe way (push ups or time outs are appropriate).



# Personal Appearance

## Personal Appearance Requirements...

- Instructors will wear the Competitive Edge instructor's jacket
- Instructors will have a neat appearance (they will appear to have showered and groomed themselves reasonably) that shows they are serious about their work as an instructor
- Instructors will not wear hats unless provided as part of the uniform
- Instructors will wear shoes of an athletic type and will have them tied so they can demonstrate and activity at a moment's notice (skates may be worn on the skills rink)

# Transitioning Between Stations

- Kids see the transitions between stations as a break.
- In some sense these are a break, but we must make it clear to kids that we expect this to be a short break.
- If the group is moving from a station where they need harnesses on to one where they don't need them we need to either just have them keep harnesses on at these transition points or make sure this is handled in a hurry. Make sure to help any players who don't know how to put the harnesses on correctly to minimize time wasted.
- Don't let kids think of this as a long break.

# Energy / Personality

- Many times kids will show up and will not appear to have the drive to get better. This does not matter. It is our job to get good effort out of every kid whether they want to work or not.
- This means...
  - Instructors must display high energy and try to bring energy out of each student
  - Instructors should use their sense of humor to keep kids positive if possible
  - These two factors will dramatically enhance the chance that the kid will learn that they can work hard and have fun at the same time
- Many times, kids will follow their instructor's lead when it comes to the energy they bring to the training environment.

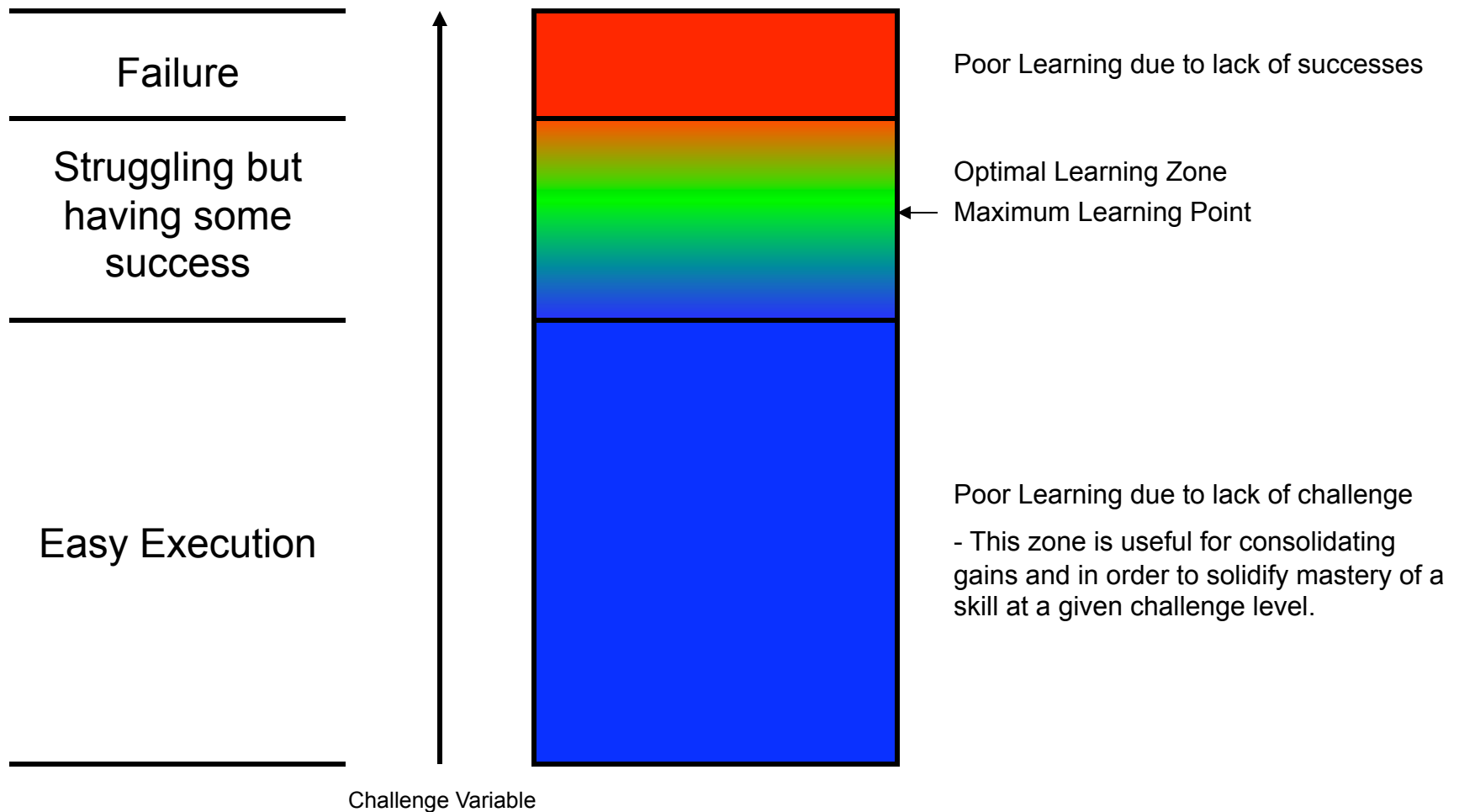
# Constant Encouragement

- As a parent it **can** be hard to...
  - Be a cheerleader for your kid
  - Deliver consistent energy to your children's endeavors
  - Make your kid realize that you “coach” them because you are trying to help them succeed
- This (and our expertise) is why many parents turn to people like us to help.
- Reward the parents by putting on a good show.
- Verbally encourage students consistently during the training sessions.
- Doing this will...
  - Be highly appreciated by parents (the customer)
  - Improve the results seen by the kid (bringing more customers)

# Variation

- We have progressions built into our program, which does mean doing the same or similar drills repeatedly in order to create a consistent structure that kids can easily get into.
- Beyond this, we do try to incorporate a lot of variation to hold kid's interest... yet kids still will be fighting boredom at times.
- As instructors, it is important to switch at the right time to new drills, or to adjust the drill they are currently doing.
- Even a subtle adjustment on a drill can be a new challenge that will overcome an impending boredom problem.

# The Optimal Learning Zone



Challenge variables can include tempo, multitasking, exertion level, limb isolation, introducing new challenges and others.

# More on Challenge Variables

## Challenge Variable Examples

Tempo – The speed at which a skill is performed can dramatically affect the challenge that a drill involving that skill presents. Increase the tempo for greater challenge.

Multitasking – Performing multiple skills at the same time requires divided concentration and concentration management. Load, or overload the brain to increase the challenge level.

Effort Level – Many skills are easy when performed at a fraction of maximum effort level. This is not the same as tempo, sometimes it is as simple as one part of the body must push hard and this make it tougher to do a fine motor skill with another part.

Heads-up Execution – Specific to stickhandling, eliminating the eyes can take the challenge up several levels.

Don't be afraid to be creative with other ways to tune the challenge level just right.

As instructors, it is often our job to force the student to manage these challenge variables such that they push themselves in the optimal learning zone. Exceptions include when we pull back in order to achieve mastery at a given challenge level or allow the challenge to be easier the first few times through the drill to allow the athlete get a feel for it.



# Role Models

- Parents want to surround their kids with people that will help them develop in a positive way.
- There is more to life than hockey and we want to impact kids positively outside of just hockey related improvement.
- For both of these reasons, always remember we are role models for these kids



# On Rink Drills

# Stickhandling Development Philosophy

- There are basically three components to stickhandling skill
  1. Control
  2. Heads up Stickhandling
  3. Quickness with Control
- We work on these components in that order
- We feel that players must first learn control when doing a new stickhandling drill before developing heads-up ability.
- Learn the movements, develop the heads-up habit, then worry about quickness.

# Shooting Mechanics Philosophy

- The Snap Shot is the most useful shot in hockey. Its combination of velocity, quick release, and accuracy make it the hardest to defend or stop in most situations.
- Most kids aged 11 and below do not yet have the strength or coordination to execute a real snap shot, so we will teach them a heel-to-toe wrist shot (where the puck rolls from the heel to the toe of the blade) as our most basic shot.
- As kids develop wrist strength and coordination, we will begin to push them toward a snap shot.
- We do this by...
  - Moving the starting point puck location closer to the toe of the blade
  - Emphasizing pushing the toe of the blade to the target at the end of the shot
  - Constantly encouraging a quicker release
- When ready we would turn this into a real snap shot.

# Instructing Shooting Mechanics

- When teaching young kids to shoot, we will be teaching young kids to execute a wrist shot. There are a few key points we will emphasize...
  - Weight transfer from the back to the front foot
  - Rolling the puck from the heel to the toe of the blade and being patient enough to let that happen
  - Snapping the toe of the blade toward the net when the puck reaches the toe
  - Bringing the hips through hard just ahead of the hands



# Crossover Flywheel

(much of this applies to the  
Treadmill as well)

# Crossover Flywheel

## Start-up/Shut-down Procedure

- Start-up

- When starting the Crossover Flywheel we need a code...

- Touch screen code – 10225

- Procedure

1. Turn the flywheel on
2. Wait 10 seconds
3. Lift the hydraulic pump switch and elevate the flywheel to desired height
4. Go to touch screen and touch the spot under the right-most tip of the on-screen logo
5. Enter the touch screen code
6. Adjust settings for speed and direction
7. Insert hold bar depending on requirements for the skaters
8. Attach the skaters
9. Begin

- Shut-down

- Procedure

1. Get all kids disconnected and off of the flywheel
2. Lift hydraulic pump switch and lower the flywheel slowly to the bottom
3. Lower the on-off switch

# Safely Operating the Flywheel

- Flywheel Requirements...
  - Harnesses on all skaters
  - Straps attached to harnesses
  - Hold bar (inexperienced skater) and front and back straps (experienced skater)
- Skater Requirements...
  - Skates
  - Helmets
  - Long pants or shin pads and long shirt or elbow pads
  - Gloves
- Challenge Level...
  - Angle and speed must be regulated carefully to keep players from being out of control (if a skater's skates are too dull one must keep the angle low)
  - Instructors should not be too eager to get kids to skate without the bar
- Whenever the Flywheel is moving the instructor should have their hand over the emergency stop button.
- Whenever the Flywheel is elevated the instructor should be sure nobody is underneath it.
- In general, anybody not skating or instructing must be a safe distance from the Flywheel before the instructor makes it start spinning.



# Operating the Flywheels Touch Screen

- Starting and Stopping
  - Start and Stop buttons are labeled.
  - The stop button can be inconsistent so always be ready to hit the E-stop button next to the touch screen.
  - Before starting make sure the wheel is set to spin the correct way.
- You can change the spin direction with the button between the Start and Stop buttons. CW means the wheel will spin clockwise. CCW means it will spin counter clockwise.
- Changing speed
  - You can change the speed by hitting the faster and slower buttons next to the speed read out area.
  - Never go less than 1 RPM or over 1760 RPM on the speed setting.
  - If you do go outside that range you have to go in the panel and turn a key to reset the control system.
- If you are stuck in a screen you don't recognize...
  - Use the E-stop button to stop the flywheel
  - Hit cancel if there is a cancel button
  - Tap under the right tip of the logo shown (and do it again if necessary) to get back to the normal control screen.

# Instructing on the Crossover Flywheel

- The Crossover Flywheel and the Treadmill are the most visible stations in and the instructor operating them are the stars of the show.
- Parents will be scrutinizing these station more than any other...
- As such, it is extra important to do the little things we should do at all stations, such as...
  - Be vocal constantly, encouraging better performance even when the skater is doing very well
  - Use personality to make it enjoyable for the skaters
  - Congratulate skaters on good performance
  - Thank kids for “working hard for you”
- Also, remember to encourage the kids who are resting to be watching the current skater, a lot can be learned by watching the learning curves of others.
- Note: For safety reasons the resting kids should always be sitting when the Flywheel or Treadmill is in motion.



# Stride Correction Priority Lists for Use with the Crossover Flywheel

We will go through the forward list before attempting  
backward crossovers on the Crossover Flywheel

# Forward Stride Correction Priority List

With the bar (Early in this process the Flywheel will be low and slow. With more comfort, more speed and angle will be added and players will experience various combinations possibly before moving to no-bar skating.)

1. Get on and glide
2. Toe Direction – toes pointed forward and to the outside
3. Weight over skates (not lateral, forward, or backward) – ideally skaters will recover to the inside hip, at first they may need to just get closer to the inside hip
4. Push direction - Push back and to the outside
5. Head up
6. Knee bend – extension (which of these to correct first can be a judgment call because many times deficiency in one causes the other)
7. Timing – player should spend a roughly equal amount of time on each leg
8. Push with each extension (instead of going through the motions)
9. Finish each recovery with the recovering foot underneath the hip of the inside leg
10. Keep arms loose
11. One hand skating – both hands

Try without the bar (Early in this process the Flywheel will be low and slow. With more comfort, more speed and angle will be added and players will experience various combinations of both.)

1. Toe direction at very slow speed
2. Speed up to manageable speed
3. Knee bend
4. Extension
5. Balance – this will be a long process to get comfortable
6. Timing – Near equal time on each leg
7. Finish each recovery with the recovering foot underneath the hip of the inside leg (this may help to achieve full extension with the inside leg as well)

# Backward Stride Correction Priority List

With the bar (Early in this process the Flywheel will be low and slow. With more comfort, more speed and angle will be added and players will experience various combinations possibly before moving to no-bar skating.)

1. Get on and glide
2. Toe Direction – toes pointed forward and to the outside
3. Fight and jump away from the bar if toes get too high
4. Weight over skates (not lateral, forward, or backward)
5. Push direction - Push straight down the flywheel (remember toes pointed slightly up)
6. Head up
7. Knee bend
8. Timing – player should spend a roughly equal amount of time on each leg
9. Reach – players will reach with the inside leg toward the center of the circle
10. Crossover amplitude – cross far over with the outside leg
11. Keep arms loose

Try without the bar (Early in this process the Flywheel will be low and slow. With more comfort, more speed and angle will be added and players will experience various combinations of both.)

1. Toe direction at very slow speed
2. Speed up very slowly as they get comfortable with toe direction at each speed
3. Raise angle after reasonable speed is achieved
4. Balance – this will be a long process to get comfortable
5. Knee bend
6. Timing
7. Reach
8. Crossover Separation (Having a large distance between the skates when crossing over)

# Forward/Backward Transitions

## Process

1. Get on and skate forward at low-to-medium speed and angle (less than half of their comfortable forward speed)
2. Get a good rhythm
3. When ready, turn the inside leg to the inside and around 180 degrees while gliding on the outside leg, turn the hips in the same motion and push off of the gliding leg to the leg that just turned
4. Get into the backward stride
5. Get a good rhythm
6. When ready, turn the inside leg to the inside and around 180 degrees back to the original forward skating direction while gliding on the outside leg, turn the hips in the same motion and push off of the gliding leg to the leg that just turned
7. Get back into the forward stride
8. Repeat
9. As players get comfortable with this add speed and angle