

System / Hockey Sense vs. Individual Skill Debate

By Bruce Turpin

Functional Hockey...

Bridging the Gap between Systems and Individual Skill Development

The youth hockey debate over teaching systems versus individual skills has been around for decades. This is a dilemma coach's still face. Which style of teaching is best for the overall development of the team, the specific development of the individual and the growth of the sport in general?

The "Great One" himself stated that in youth hockey, "there is too much emphasis on 'systems' and not enough on creativity. It's stifling." Wayne Gretzky is the quintessential player when you think of "hockey sense" - a player that has the ability to see the ice and to read, react and anticipate, like no other player in the history of the game. What message is he sending the hockey community? How should we as coaches teach the best game on the planet? Should we focus on skills, on systems, or on something else?

To begin, let's take a look at Hockey Canada's skill development pyramid. USA Hockey seems to follow a similar development philosophy.



The initiation Program recommends player development be built on practicing technical skills 85% and individual tactics 15%.

The Hockey Canada skills Development Program for Novice hockey recommends 75% on technical skills, 15% on individual tactics, and 10% on team tactics.

The Atom program recommends 50% technical skills, 20% individual tactics, 15% team tactics, 10% team play, and 5% strategy.

The Peewee program recommends 45% technical skills, 20% individual tactics, 15% team tactics, 10% team play, and 10% strategy.

The Bantam program recommends 40% technical skills, 15% individual tactics, 20% team tactics, 15% team play, and 10% strategy.

The Midget program recommends 35% technical skills, 20% individual tactics, 20% team tactics, 15% team play, and 10% strategy.

It seems intuitive that without a solid base to the pyramid (*individual hockey skills*), the subsequent stages of development cannot be performed in an optimal manner. Once a player has developed the essential skills, how do we introduce systems? Can we begin teaching systems at an early age? What is the proper progression to teaching hockey systems? Is there even room for teaching systems at the youth hockey level?

When most people envision good hockey teams, they think of disciplined, systematic teams that consistently execute

effective patterns and display solid defensive formations. Teams that embody these characteristics are rare at the professional level, so should youth teams be expected to play with such a level of discipline? Should coaches be teaching such rigid systems at the youth level?

Let's take a look at the first stage of the development process - teaching individual skills. Skating, puck handling, checking, passing and shooting skills are essential and require years to perfect. Some coaches believe that pure skill development is of paramount importance in developing young hockey players and they concentrate the majority of their practice time to the individual skill development. At mites and squirts, this may be acceptable, but at peewee and bantam this becomes extreme. Does practicing these types of skills transfer to game performance? Probably not, but coaches will express that they are more concerned with development over wins and losses. That sounds good, but the key question is: Does individual skill development really produce better hockey players?

The problem with pure skill development is that most coaches tend to teach skills under isolated environments, such as power skating without pucks, stationary shooting, puck handling around cones, etc. We need to remember that all hockey skills are inter-related and have co-dependency on one other. For example, how a player skates is related to how he carries the puck. How a player shoots is based on habits developed when carrying a puck while skating. So why would we choose to practice these drills under isolation? Hockey is not played in a vacuum! This type of isolated skill development can lead to the development of bad habits. These bad habits reveal themselves as players become older and the intensity and speed of the game become elevated. Players are then forced into game situations where they need to integrate their skill-set under different conditions; conditions under which they have much less time and space to operate. As coaches, we know that one of the hardest parts of our job is breaking bad habits that players have developed over the years.

I have been coaching for several years, and it still amazes me at the sheer number of players who get to the bantam and midget levels without a real sense as to how hockey is meant to be played. Even skilled players at the AA and AAA levels are missing out on a critical piece of the development puzzle - "hockey sense." We have all heard of the old adage ... he's a great player who has all of the tools, but no toolbox to store them in.

As coaches, what are we missing? Where are we going wrong in terms of development and teaching players hockey the way it's supposed to be played?

Looking at hockey development from the eyes of an engineer, the problem is fairly simple. To produce a great hockey player, you need to optimize the mind and body with the appropriate skill-set. That seems fairly simple, but as a coach and an exercise scientist, I also know it's not that easy.

How do we define skilled performance?

A skill consists of "the ability to bring about some end result with maximum certainty and a minimum outlay of energy." Motor learning is a set of processes associated with practice or experience leading to relatively permanent changes in the capability of skilled performance. Undoubtedly, one of the most important features of skilled performance is making quick and predictable decisions (*what to do and what not to do*) in any given situation.

The key words to focus on here are "result" and "performance." As coaches, the result we are striving for is game performance. To ensure improvement in game performance, there are two principles we need to consider. The principle of specificity states "the most important form of

training for athletes is that which matches the biomechanics, energy system use, and psychological control factors of an intended competitive performance." Second, the transfer of learning refers to the application of learning achieved in one task or setting to the performance of some other task. Are the drills you perform in practice specific to game situations and does these drills transfer to improved game performance?

As coaches, our goal should be to optimize our practices to ensure improved game performance for our players. This approach will be different from a skill-centered approach where techniques are often taught in isolation, not requiring players to think about its relevance to game situations, and bearing little resemblance to the skill required in an actual game. Traditional coaching methods focus on specific motor responses (*techniques*), and fail to take into account the contextual nature of the game. This concentrates too much on technique and not enough on decision making.

TECHNIQUE + PRESSURE = SKILL

Practicing drills in isolation does not reflect a large number of variables associated with implementing this skill in a constantly changing game situation. Emphasis on technique has generally resulted in the production of skillful players who possess inflexible techniques and poor decision making capacities.

Decision-making is the foundation that determines level of success achieved by athletes in any sport -- it is the cornerstone of "hockey sense." While skills are very important to successful performance, it is the athlete's conceptual abilities that make the difference.

How do we define a great hockey player?

Anatoli Tarasov, the great Russian coach, stated that a world-class hockey player should be all-around physically developed with speed, strength and a big and varied bag of technical tricks. BUT, he added that all of these qualities are of no use if the player lacks a high culture of the game. The inherent qualities he had in mind were "tactical intuition, precision work with his partners, perfect orientation, a feeling of the game, the ability to see, understand and even anticipate the actions of the closest and furthestmost opponents and partners." These intangibles are what we refer to as "hockey sense".

Hockey is a fluid game of read and react that features several hundred transition situations (*offense to defense or vice-versa*) for each team and its players throughout the course of a single game. Players must learn to think - analyze (*read*) and provide a solution (*react*) to a given situation quickly and accurately. Practice is intended to assist the player in this process so he/she performs well in games. The goal of practice is to learn to play better.

Coaches need to design practices using this type of game-sense approach, an approach that allows players to be empowered to think of tactics, quick decision making and problem solving in a highly motivated environment. I have coined this "functional hockey training" and our approach is to use flow and tempo to help create an environment that will foster the development of "hockey sense."

So, how do we go about molding hockey players with such all-around qualities?

If we do not expose players to training that is at least equal to what they will face in a routine game, then we as coaches are involuntarily hindering the development of our players.

Specificity is achieved and decision making is practiced with drills and scrimmages that are game-like in nature. Rehearsing under game-like conditions strengthens the athlete's decision making skills and shortens the transfer time from practice to actual competition.

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Hockey is a reactionary game at its core, because of its transitional nature (*unlike baseball or football*). Therefore, the keys to functional hockey training are flow, tempo and transition. Transitional drills are necessary for tactical development. For players to improve their hockey sense, drills must contain transition. These types of drills will help players to develop the quick thinking necessary to perform in game situations.

We have implemented functional hockey training at the Chicago Blues Bantam level over the past two seasons with great success -- A and AA State Champions this past year (*with our top two teams making the AA Final Four*); CSDHL Champions and Runner's Up over the past two years). I will outline a few of the drills that we typically run during practices:

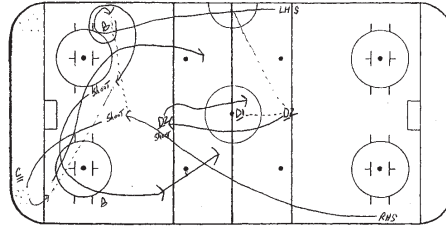
Transition Drill

The drill begins with a 5-on-0 breakout. All five players must touch the puck before forwards shoot at the other end and then set up in front of the net for a tip on goal. Both defense follow up the play to the other end, receive a pass from coach in corner, make a partner pass and shoot low on net. On whistle, all five players regroup in neutral zone, transition cycle through all five players and return for shot on net. Defense follow up and repeat cycle two more times. Drill finished with a 3-on-1 back to far end. (*Coach in corner will make all passes throughout drill sequence.*)

99 Rollout

D1 passes to D2, D2 passes to left hand shot (*LHS*) forward who drives to hashmark and rolls out for a pass to RHS trailer (*right hand shot*). RHS forward shoots and goes to the corner

for loose puck and feeds LHS who rolls out a second time then heads to the front of the net. D2 follows up play, receives pass from coach in corner, shoots and plays 2-on-1 return by both forwards. (*Coach will make passes to defense for shot and two forwards for return 2-on-1.*)



99 Rollout

3-on-2 Continuous

To start the drill, three forwards curl into one zone and receive a pass from the goalie. These forwards return up ice against two waiting defensemen. As the rush enters the offensive zone, three supporting forwards join the play and the situation is played out. When the supporting forwards gain puck control (*from turnover or pass from defense*), they rush up the ice against two new waiting defensemen creating a new 3-on-2 situation. The drill keeps flowing continuously.

By improving the quality of drills used, the quality of practice proportionately increases. In the game of hockey, the speed and ever-changing situations place demands on the player that require recognition, and the technical skills for adjustment and reaction (*i.e. "hockey sense"*). This means that practice sessions must be designed to place the athlete in game-like

situations to force them to utilize their hockey sense.

INPUT – Stimulus Identification – Response Selection – Response Programming – OUTPUT

To re-emphasize a prior point -- probably the most important feature of skilled performance is quickly and predictably deciding what to do (*and what not to do*) in particular situations. As coaches we have an obligation to structure our practices to develop the above qualities. If a player is not offered training at an intensity that is at least equal to what he will face in game situations, then we as coaches are hindering the development of our players.

Read-and-react. Create. Anticipate. These are the qualities of great hockey players, so as coaches, we must create an environment that fosters the growth of these qualities. Functional training principles for the game of hockey can help take your team to the next level.

As coaches, be creative! Design interesting but difficult drills! Introduce elements of fun and competition in each practice! You will be surprised at what you can do with a group of players with average ability who are well-disciplined and coached using the principles of functional hockey.

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The Chicago Force...Building on Success www.chicagoforcehockey.com

Make sure to mark these dates on your calendar, as the Force builds their team for the 2005-2006 season:

Thursday May 26th at 7:30 PM. Please join us at our 2nd annual open house, at the West Meadows Ice Arena. Come meet the coaching staff, tour the facilities, and meet Force alumni. Admission is free and refreshments will be served. For more information please visit our website www.chicagoforcehockey.com.

Every Wednesday evening from June 1st through July 27th. Serious hockey players with aspirations of playing Junior hockey with birthdates of 1989, 1988, 1987, 1986, and 1985 will want to participate. Please visit the Force website www.chicagoforcehockey.com for more information and a printable application form.

Friday June 24th, Saturday June 25th, and Sunday June 26th. The Force will be conducting a "prospects" camp at the West Meadows Ice Arena. The camp will be limited to a total of 102 players with birthdates of 1989, 1988, 1987, 1986, and 1985. Please visit the Force website www.chicagoforcehockey.com for more information and a printable application form.

Wednesday August 3rd through Sunday August 7th. The Force will be holding an "open" tryout camp at West Meadows Ice Arena. The tryout is open to all players interested in playing junior hockey with birthdates of 1989, 1988, 1987, 1986, and 1985. Please visit our website www.chicagoforcehockey.com for more information and a printable application form.