

## Soccer Savvy Players Guided Discovery by Age Group

*Sam Snow*

*Director of Coaching*

**US Youth Soccer**

*John Thomas*

*Assistant Director of Coaching*

**U6/U8 – Low Order Questions**

**U10/U12 – Combination of Low and High Order Questions**

**U14-U19 – Predominately High Order Questions**

Being soccer savvy means a player has an innate understanding of what is going on around him/her on a soccer field and having the talent to impact the game. Being savvy comes into being for a player only if the soccer environment and culture in which the player is raised is a rich one. Use of guided discovery by coaches will be a positive influence on this healthy soccer experience for adolescent and preadolescent players. We want to avoid automaticity in our players. Automaticity is putting your brain on autopilot and giving the usual responses, even if you aren't in the appropriate situation. Too often we teach players things like, 'There's a right way and a wrong way to do everything, regardless of the circumstances.' What we should teach them is how to think flexibly, to be mindful of all the different possibilities of every situation and not close themselves off from information that could help them.

The first coaching method that engages the player in discovery is called guided discovery. The essence of this method is a particular coach-player relationship in which the coach's sequence of questions brings about a corresponding set of responses by the player. Each question by the coach elicits a single correct response discovered by the player. The cumulative effect of this sequence, a converging process, leads the player to discover the sought tactical concept, principle of play or technical idea. The specific process has the following set of objectives:

1. To engage the player in a particular process of discovery—the converging process
2. To develop a precise relationship between the player's discovered response and stimulus (activity and/or question) presented by the coach
3. To develop sequential discovery skills that logically leads to the discovery of a concept
4. To develop the patience in both the coach and the player that is required for the discovery process


During training sessions and matches the coach guides (facilitates) the players, through effective age appropriate questioning, to discovery. A good coach does not teach a player anything, he/she leads the player to discover how to play.


### ***Asking Meaningful Questions***

Coaches must be skilled in the art of "asking meaningful questions." This will give players the opportunity to practice problem solving and will help them to become more capable of solving problems that arise in training sessions and matches.


The use of low-order and high-order questions is necessary during training sessions. It is important for coaches to understand both types of questions and to apply them appropriately. Use of high-order questions will provide players more opportunities for self-evaluation; leading to being soccer savvy.


Coaches tend to ask low-order questions, because they are easier. Here are examples of low-order questions:

 What part of the foot do you use to make a short pass?


 Where should you aim when shooting on goal?


Ultimately coaches should strive to use high-order questions and this will be particularly true as the players move into the formal operational stage of cognitive development. Here are examples of high-order questions:


 How can we get the ball down the field quickly?

 Why should we play high-pressure defense?

For all age groups when introducing a new aspect of play begin teaching the topic with simple-low order questions. With all age groups the coach may need to go through a three step questioning process.

 Open question (high order) ... Open questions allow players to express whatever they're thinking. They don't demand a response, but leave space for the child to answer thoughtfully. They encourage creative thinking, problem solving and imagination.


 Directed question (part of the answer is worded within the question)


 Closed question (low order) ... the answer is within the question; a yes or no answer is a satisfactory reply


“Asking the right questions takes as much skill as giving the right answers.”  
- Robert Half

### *Goals of Effective Questioning*

 Actively involving players in the learning process

 Enhancing their task mastery

 Enhancing their conceptual understanding

 Promoting both simple (low-order) and complex (high-order) thinking

### ***Encompassing Goal***

Our goal is to develop more “soccer savvy” players who are more self-reliant during a match. Players consistently coached with this method will be more adaptable to the demands of the game. This coaching method is also likely to produce more creative players.

The best players in the world put thought and energy into developing techniques and styles of play best suited to their individual talents. We are rarely taught conditionally.

Being mindful, *using imagination and creativity to learn what works best for you*, is what makes the difference between an average player and a champion. When players see that there's more than one technical or tactical solution to each situation, they become mindful.

The way you cultivate mindfulness is to realize that information about the game, around and in you, is endlessly interesting and it looks different from different perspectives. But many coaches and players operate mindlessly, pursuing routines (drills) rather than looking for new details around them. The results can be disastrous!

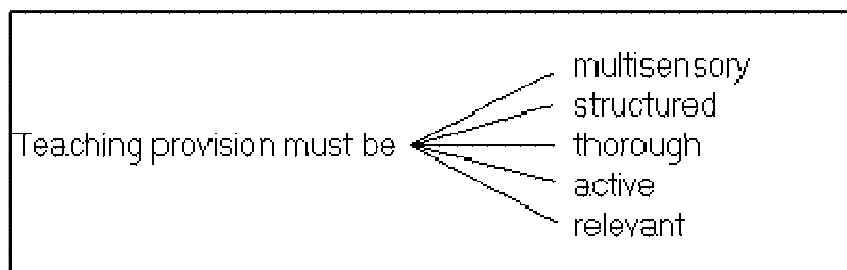
When the atmosphere at a training session is permeated with positive interaction, creativity and well timed questions then players will arrive at training already mentally alert. It is then more likely that even easily distracted players will stay on task a bit longer.

In many ways using guided discovery as a coaching method will be more difficult than using the command style. To guide players the coach must actually know the destination. To ask appropriate questions requires deeper knowledge of the training session topic by the coach. It is useful for the coach to write some questions on the lesson plan coaching points. These questions should appear in the written lesson plan that a coach should prepare for each training session.

“Why? And How? Questions enhance the athlete’s ability to make decisions, one of the central goals of empowerment...it is important for coaches to allow athletes to think about questions and help encourage them to answer. If athletes are having difficulty with the answer, a coach can redirect or rephrase a high-order question so they can think carefully about what has been asked.”  
- Lynn Kidman

### ***Active Learning***

Active learning means that the player is involved in what he/she is doing and not merely a passive observer of what is going on. For example, when new material is being tackled, the technique of Directed Discovery Teaching is employed; the player is directed by means of questions, tasks, training games and so on to discover the new information for him/herself. He/she then participates in the processing of the information in a memorable form (e.g. answering guided questions); he/she immediately practices it (e.g. by game-like activities) and has opportunities to use it (e.g. by small-sided games) and to extend the skill (e.g. by matches). By contrast with passive learning the player may remember 18% in long-term memory. With active learning many players will remember 68% in long-term memory.



It's important for players to be in control of their game and the way to be in control is to be in the active process of mastering some aspect of soccer. It's in the mastering that mindfulness comes to the player. If players and coaches realize that much of the burnout they experience is the result of mindless over rhythmization, turnover goes down by a third. If all you think about is how you're likely to fail at a challenge, you probably will. But if you ask yourself 'What are ten ways I could succeed at this?' your chances of success are much greater. Just noticing new things keeps you alert.

In general there should be an approximate balance of 70% guided discovery and 30% command style coaching used in a training session. This balance will occasionally vary dependent upon the topic of the training session and to a lesser degree the age group or experience level of the players.

The command style of coaching should not disappear from training sessions, but merely should be reduced in the frequency of its use. Giving directions to the players to set up an activity fits appropriately into command instructions; i.e., how many players in the activity, the placement of the goal(s) or cones, etc. Disciplinary comments certainly can be delivered with a command, although a well-phrased question can be equally affective for behavior modification. A training session focused on fitness improvement likely will have very few guided questions. Training sessions on tactics on the other hand likely will present opportunities for many guided questions. Presently 60% of mistakes in professional soccer are due to a lack of game perceptions.

Training sessions on technique fit well into the guided discovery coaching method. Certainly mental skills taught to the players in any training situation would be effectively taught and reinforced by facilitating appropriate questions. Guided discovery, pointing players toward key information then letting them infer patterns on their own, is most effective in developing anticipation skill because it combines the best of both worlds; it's faster than self-discovery but less susceptible to anxiety than explicit instruction.

Once a coach has been using guided questions in team training long enough for the players to have become accustomed to it then occasionally using the Socratic Method\* to ask questions will be practical. Indeed this method can be quite useful in maintaining a good level of mental focus on the task at hand. The Socratic Method will be most effective when coaching adolescents and adults.

In a broad sense our coaching style of the American soccer player must move away from the "sage on the stage" to the "guide on the side."

#### *Examples of Guided Questioning...*



In a 3v3 situation, what's the best way to get the ball to your teammate? Let's try it!



What happens when you pass the ball behind your teammate? Let's try it!



Now, if you want to make sure your teammate goes forward, where do you want the pass to go?

## ***Training Session Topics***

The most appropriate types of training topics are principles of play and concepts-tactics of soccer. The objective to be discovered should not be a fact, a specific word or technical term. These categories of knowledge are learned by being told, directly. The structure of the knowledge in this method is bottom-up. The player will discover the more specific topic first and gradually go up to the more generic level.

### *Examples of Guided Questioning...*



Why didn't that pass work? So, how should we do it this time?



How can we get the ball to the other side of the field?



Why is it important for you to lift your head up when you have the ball?

### *Positive Coaching Responses...*



Great....so how could we do it faster?



I like that answer...what other skill can we use to get the ball to our teammates?

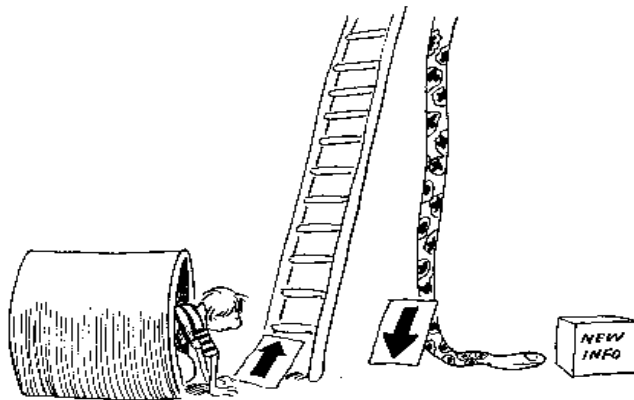


Now you're getting the idea! Where could you position yourself so that you could see both the player you are defending as well as the ball?

## ***Pitfalls***

1. Players answer without real thought, they just call out catchwords or phrases they have heard from the coach
2. Coach's overuse of questions and/or mistimed or misphrased questions
3. Coach's use of rhetorical questions
4. The coach not giving the players enough time to process the question, think it through and then give an answer (impatience)
5. The coach asking too many questions sequentially

## ***Guided Discovery***



In contrast to "reproduction" of knowledge in the coach-oriented approach, the guided discovery approach emphasizes the "production" of new talents. The approach invites the player to think, to go beyond the given information and then discover the correct skills. The essence of this style is a particular coach-player relationship in which the coach's sequences of information and questions cause a corresponding set of responses by the player. The combination of information and question by the coach elicits a correct response, which is discovered by the player. The cumulative effect of this converging process leads the player to discover the sought tactic or technique.

Guided discovery produces best results in a one-to-one situation. In a team many players can benefit from this process, but players discover at different speeds. When one player has discovered the answer and utters it in public or acts upon it in an activity, the other players, who receive the response, become the receivers and no longer discover it. Hence a variety of challenges and problems should be presented to the players throughout the season.

### ***Methodology***

In U6 (pre-kindergarten) through U10 (second grade), five methodologies are employed in teaching soccer skill development and movement education concepts. With the command style, the coach explains a skill, demonstrates the skill and allows the players to practice the skill. The task style expects players to master or achieve a particular skill, but they can do so at their own pace. Tasks are given verbally or written on task cards (soccer homework). Problem solving is frequently employed where the coach poses a question and through exploration (trial & error) the players arrive at a solution. The process concludes with observation, evaluation and discussion by the coaching staff: match → analysis → training → match. Problem solving has no prescribed answer. Free exploration, where the player's responses have no imposed responses, and guided discovery, where only the coach is aware of the predetermined goal, are also key methodologies in the American player development plan.

### ***Learning Outcome***

The learning outcomes that can be reached in this method are problem solving, defined and concrete concept. Learning in guided discovery style induces a player to develop more cognitive skills than the previous command style (Mosston and Ashworth, 1990). The cognitive development is beneficial for problem solving abilities. Defined and concrete concepts can also be achieved by indirectly presenting the information, e.g., question to the point and/or to a specific player.

### ***Guided Discovery versus Command Style***

What style of coaching is most effective for consistently producing optimal performance? Here's a simple analogy that will drive the point home about the issue of whether to instruct command style or through guided discovery. Consider a child in school who is given an assignment of doing some research in the library. Typically, the child begrudgingly goes to the library and clearly does not enjoy the process. It's too much like work. The opposite would be the student who selects their own topic and, out of natural interest and curiosity, goes to the library under their own motivational steam, without being forced to go by the teacher. Which visit to the library will result in greater

learning and retention? Answer this one for yourself and relate it to learning soccer. Studies show that players who discover their own needs are much more motivated to improve and work on their short-comings than others who are simply told what they need to improve.

Guided discovery simply means that the coach raises questions and provides options or choices for the players, guiding the players to answer the questions for themselves because they become curious about the answers. Skills require less attention with practice, but the nervous novice thinks too much about what they are trying to do, a form of paralysis by analysis.

Festinger's theory of cognitive dissonance suggests that problems or questions create the need for solutions or answers. Guided discovery is a teaching technique that has evolved from this theory. In this case, players discover the most effective way to perform by responding to specific questions. For example, soccer coaches can teach players to use their insteps to improve the trajectory of their passes by asking the following questions:

**Q1** What kind of kick would be needed to pass the ball to someone who is far away?

**A1** A long kick.

**Q2** How do you overcome an opposing player positioned between the ball and the receiver?

**A2** The ball must go over the opposing player.

**Q3** In what way should the ball be passed to go over the player?

**A3** Low, under the ball.

**Q4** To send it over the player, which part of your foot must contact the ball?

**A4** The top of the foot (instep).

A philosophy of action needs to be applied to all player development decisions. These decisions shape player perceptions and determine the ultimate success of a soccer club. Player development plans (curriculum) should answer the question "How does this activity affect players' desire to remain active on their own?" If the answer is negative, the activity is counterproductive. Soccer coaches must be involved in the curriculum process as active decision-makers. They should respond to player needs and interests, and not blindly accept pre-packaged curriculum formulas (drills). Developing interesting and varied activities creates a well-balanced club program. Training activities must be modified to increase activity levels and player success rates. For instance, a soccer game for children with 22 players doesn't address players' need to be part of the action — the ratio of players to ball is 22:1! Players find more enjoyment playing on teams of five, which offer a more reasonable player-to-ball ratio of 10:1. Heavy reliance on drills is typical of an elitist-type program. Drills may develop skills in a few, but at the expense of a participatory decline among others players in the program. For most players, being part of the action is far more important than acquiring advanced skills.

Player evaluation, when necessary, should also remain in keeping with the inclusion philosophy. Numerous types of evaluation procedures allow for individual success at personalized levels of ability.

### The Philosophy behind Guided Coaching

Has an organization	→	Structured and cumulative
Uses a technique	→	Multi-sensory
Encourages a thinking approach	→	Directed discovery coaching
Provides the "tool kit"	→	Rules and strategies
Builds confidence	→	Success
Extends abilities	→	Mastery and creativity
Gives practice	→	Automaticity
Lays foundations	→	Access to all principles of play

The atmosphere that coaches create is considered most important. The soccer environment needs to be viewed by players as physically and psychologically safe. The atmosphere should be comfortable for everyone, and not cater exclusively to the elite players. Approachability and a non-judgmental attitude encourage players to take risks, one of which is to continue with soccer.

While the training session is the best time and place to interact with the players with critical thinking and guided discovery, during matches may be a time to further the coach's efforts to get the players to "sort it out" for themselves. Questions could be posed to the players on the bench and thus better prepare them mentally/tactically for when they enter the match. Appropriate questions to the team during half-time can get them all on the same page for the second half. Furthermore, if the players are sorting it out among themselves at half-time then the odds of them actually executing the second half game plan improves.

#### ***"The Battle of Waterloo was won on the playing fields of Eaton"***

Eton had no adult coaches. Eton students were members of the elite who were expected to become leaders of their country. Since one of the things that leaders do is organize things, the kids were expected to organize their own games, which they did.

In the United States, youth sports evolved with greater mass participation. The goal of the nation's elite was to turn non-elite youth into, in Bredemeir's memorable phrase, "compliant factory workers." So it is not surprising that youth sports in the United States started as a highly organized activity with adults in charge and kids expected to do as they were told and perform on command. In many ways, things have not changed all that much.





A top-down communication style in which the coach mostly tells and the athletes mostly listen and obey will reinforce a team culture in which players are compliant and wait to be told what to do. And this can be costly on the playing field where initiative and aggressiveness can make all the difference."<sup>1</sup>

---

<sup>1</sup> Thompson, Jim (2003). The Double-Goal Coach; New York, New York; HarperCollins Publisher, pp. 161-162



## *Summary for Guided Discovery Approach*

-  Coach controls pace/rhythm
-  Present information indirectly
-  No time limit
-  Fading response

A characteristic of effective coaches at all levels is ongoing learning and reflection. For great coaches there never is an “off-season.” Virtually every portrait of great coaches shows them to be active learners in constant reflection. It is often argued that effective coaching is as much an art as it is a science. Guided discovery in coaching soccer is a balance of the two.

Soccer is easy to teach to children because many of them already know a good deal about it and many are so keen on it. Simple principles, professional organization, appropriate incentives and unlimited encouragement – any coach worth the name can hardly fail. Even more important, he or she will gain enormous gratification from the pleasure and satisfaction gained by the children.

“Nothing is permanent except change.”






- Aristotle

---

### *\* Socratic Teaching*

The oldest and still the most powerful, teaching tactic for fostering critical thinking is Socratic teaching. In Socratic teaching we focus on giving players questions, not answers. We model an inquiring, probing mind by continually probing into soccer with questions. Fortunately, the abilities we gain by focusing on the elements of reasoning in a disciplined and self-assessing way, and the logical relationships that result from such disciplined thought, prepare us for Socratic questioning.

Thankfully, there is a predictable set of relationships that hold for all subjects and disciplines. This is given in the general logic of reasoning, since every subject has been developed by those who had:

-  shared goals and objectives (which defined the subject focus)
-  shared questions and problems (whose solution they pursued)
-  shared information and data (which they used as an empirical basis)
-  shared modes of interpreting or judging that information
-  shared specialized concepts and ideas (which they used to help them organize their data)



shared key assumptions (that gave them a basis from which to collectively begin)



a shared point of view (which enabled them to pursue common goals from a common framework)

Each of the elements represents a dimension into which coaches can delve in questioning a player. We can question goals and purposes. We can probe into the nature of the question, problem, or issue that is being presented. We can inquire into whether or not we have relevant data and information. We can consider alternative interpretations of the data and information. We can analyze key concepts and ideas. We can question assumptions being made. We can ask players to trace out the implications and consequences of what they are saying. We can consider alternative points of view. All of these, and more, are the proper focus of the Socratic questioner.

As a tactic and approach, Socratic questioning is a highly disciplined process. The Socratic questioner acts as the logical equivalent of the inner critical voice which the mind develops when it develops critical thinking abilities. The contributions from the members of the team are like so many thoughts in the mind. All of the thoughts must be dealt with and they must be dealt with carefully and fairly. By following up all answers with further questions, and by selecting questions which advance the discussion, the Socratic questioner forces the team to think in a disciplined, intellectually responsible manner, while yet continually aiding the players by posing facilitating questions.

A Socratic questioner should:



keep the discussion focused



keep the discussion intellectually responsible



stimulate the discussion with probing questions



periodically summarize what has and what has not been dealt with and/or resolved



draw as many players as possible into the discussion.

### *Bloom's Questions Taxonomy*

As coaches if we ask questions of our players at all, we tend to ask questions in the “basic knowledge” category 80% to 90% of the time. These questions are not bad, but using them exclusively is. Try to utilize higher order level of questions. These questions require much more ‘brain power’ and a more extensive and elaborate answer. Bloom, et al., devised a taxonomy of types of questions in 1956.

The six categories are:

#### BASIC KNOWLEDGE

**Remembering:** can the player recall or remember the information?

*Remembering*

... Laws of the Game

---

*Memorizing*

*Recognizing*

*Recalling identification*

*Recalling information*

*Who, what, when, where, how ...?*

*Describe*

... positions in a formation

... game situations

... teammates

... how to execute a technique

## COMPREHENSION

**Understanding:** can the player explain ideas or concepts?

*Interpreting*

*Translating from one medium to another*

*Describing in one's own words*

*Organization & selection of facts & ideas*

*Retell...*

...opponents/teammates actions

... training to matches

... answering guided questions

... actions during training sessions

## APPLICATION

**Applying:** can the player use the information in a new way?

*Problem solving*

*Applying information to produce some result*

*Use of facts, rules and principles*

*How is ... an example of ...?*

*How is ... related to ...?*

*Why is ... significant?*

... only if the coach provides this atmosphere at training sessions

... decision-making in matches

... technical/tactical functional actions

## ANALYSIS

**Analyzing:** can the player distinguish between the different game cues?

*Subdividing something to show how it is put together*

*Finding the underlying structure of a communication*

*Identifying motives*

*Separation of a whole into component parts*

*What are the parts or features of ...?*

*Classify ... according to ...*

*Outline/diagrams ...*

*How does ... compare/contrast with ...?*

... principles of play

... psycho-emotional

... psychosocial

... sequencing motor skills (movement + technique)

---

*What evidence can you list for ...?*

### SYNTHESIS

**Creating:** can the player create new product or point of view?

Creating a unique, original product that may be in verbal form or may be a physical object combination of ideas to form a new whole *... tactics*

*What would you predict/infer from ...?*

*What ideas can you add to ...?*

*How would you create/design a new ...?*

*What might happen if you combined ...?*

*What solutions would you suggest for ...?*

### EVALUATION

**Evaluating:** can the player justify a stand or decision?

*Making value decisions about issues*

*Resolving controversies or differences of opinion*

*Development of opinions, judgments or decisions*

*... sportsmanship*

*... handling adversity*

*... psychosocial/cognitive interaction with teammates, coaches & team managers*

*Do you agree that ...?*

*What do you think about ...?*

*What is the most important ...?*

*Place the following in order of priority ...*

*How would decide about ...?*

*What criteria would you use to assess ...?*

### **Credits and References:**

Kidman, Lynn (2001). *developing decision makers...An Empowerment Approach to Coaching*, pp. 118-130. P.O. Box 31 259, Christchurch, New Zealand: Innovative Print Communications Ltd.

Kidman, Lynn (2005). *Athlete-centered Coaching...Developing inspired and inspiring people*. P.O. Box 6321, Christchurch, New Zealand: Innovative Print Communications Ltd.

M. Greer (2004), American Psychological Association

Pohl, Michael (2010). Old Dominion University website