

The 21st Century Basketball Practice by Brian McCormick

Introduction

Notes by Luke Gromer, [@lukegromer](#)

Introduction

- The game has changed dramatically in the past two decades, but our practices haven't changed with it!
- Most coaches just emulate their mentors and previous coaches
- Brian moved from traditional practices to small-sided games, constraints-led approach, and decision training
 - Players improved
 - They won
 - Players had fun
- Brian's experience:
 - Coached at every level, including overseas
 - Ph.D in Exercise and sport science

The 21st century player-The Global player

- Global player = a player with the skills to fill every role
- Set them up to play positionless basketball
 - Perimeter and post skills for every player
- Develop Game understanding or Basketball I.Q.
 - It requires skills coupled with a read or decision based on perceptual cues
- Don't designate positions until the varsity level
- Players need to play more

The 21st century practice

- All about creating the optimal learning environment for kids
- We want more creative and more skilled players

Questions to consider

- Are my practices designed to develop the global player?
- Do I practice the perceptions and actions together or isolate the action?
- Can my players adapt their technique to changing demands?

Chapter 1: The Practice Environment

Notes by Luke Gromer, [@lukegromer](#)

- **Introduction**

- “Coaches create the practice environment based on their general beliefs about people, and their players specifically”
- A comparison of coaches:
 - Coach G
 - Believes people are fundamentally bad (i.e. they’re just looking to get by)
 - Leads with a transactional management style
 - Punishment and rewards
 - High supervision
 - Controlling
 - Social distance between coaches and players
 - When a player struggles...
 - Assumes it’s laziness or lack of preparation
 - Punishes the player instead of discovering the root cause
 - Coach B
 - Believes people are fundamentally good (i.e. they try their best and want to perform)
 - Leads from a place of empowerment
 - Sets high goals and standards
 - The environment is democratic - players and coaches collaborate
 - The focus is on the common goal
 - When a player struggles...
 - Talks to them
 - Asks questions
 - Will not let a player risk their health or injury
 - They find the root cause

- “In the classic model, the coach holds the power”
- “A coach who creates an environment of empowerment provides the players with more choice and control... An empowerment approach enhances motivation, self-awareness, and self-responsibility. With enhanced motivation and self-responsibility, players strive to meet the high standards, and coaches do not have to resort to rewards and punishment.”

Learning Environment

- Educative Environment vs. Training Environment
 - Educative - builds and expands options
 - Focused on increasing “the number of potential actions”
 - Trainers usually focus here
 - Training - reduces options
 - Focuses on “refin[ing] an existing action”
 - Coaches usually focus here
- Skill Execution
 - It’s full of “ifs”
 - It depends on so many variables and there are so many possible solutions
 - I.e. defenders, location, other players, etc.
 - “Basketball is not black and white; there are no absolutes”
 - Limiting players makes them more predictable and easier to defend
 - Find the middle ground - “A child should explore, but also have some direction”
 - It’s okay to let players have fun doing things that don’t necessarily happen in the game
 - Enjoyment should be kept at the forefront

Coach’s Response to Mistakes

- “When you punish players for making a mistake or falling short of a goal, you create an environment of extreme caution “ - John Wooden
- “In many ways, the manner in which a coach reacts to mistakes or miscues, and the feedback that the coach provides, determines whether the environment is educative or training.”

- 3 Reasons Players Make Mistakes:
 - “They don’t understand.”
 - “They aren’t good enough yet to do what is asked of them or at least not good enough yet to execute consistently.”
 - “They don’t care.”
- “Which reason requires punishment?”
 - Example of classroom teacher giving a test that students failed
 - They wouldn’t give them meaningless busy work from another subject
 - We would expect the teacher to take some responsibility and likely reteach the content
- “When players do not understand, that is the coach’s fault.”
- Punishing players
 - It misplaces their attention and concentration
 - The players want to execute the skill well
 - They need more reps, and punishments takes those away
 - The players recognize that they’re making mistakes, which is a vulnerable place to begin with
- How to respond to mistakes
 - Avoid
 - Punishing
 - Poor body language
 - Inspiring fear
 - Making kids afraid of making mistakes
 - Do these things
 - Encourage them
 - Use mistakes as teaching moments
 - Provide opportunities for players to self-correct
 - Inspire the desired response
- When to correct mistakes
 - Wait until a player or team has made the mistake multiple times
 - Don’t forget to look for positive plays to comment on!
 - If mistakes persist, the challenge may be above their current ability level

Mistakes and Learning

- “... there is no learning without mistakes. When players do not make any mistakes they are practicing at a level that they have mastered previously: There is no learning. Failing is a part of learning.”
- Find “the sweet spot” a.k.a. Zone of Proximal Development
 - Students should be able to succeed 60%-80% of the time
 - Avoids frustration because it’s too hard, yet still provides learning that entails mistakes and failures
 - “To move toward an optimal skill performance, players must practice outside their comfort zone at the edge of their abilities.”
 - “The majority of practice should occur in the sweet spot.”
 - A mindset that is afraid of making mistakes will lead players to revert to their “comfort zone” to avoid failures
 - It stunts long-term development as players try to look good in the short-term
- “When youth sports grow too competitive, too early, young children get stuck in their comfort zones. Rather than experimenting and trying new things, they attempt to limit their errors. Limiting errors may improve short-term performance, but this approach stifles learning: Children master sub-optimal skills.”
 - It’s crucial to allow players to make and learn from their mistakes
 - They need to be willing to move beyond the comfort zone to truly develop

Conclusions

- “... the classical model is a coach-centered approach; this is the my-way-or-the-highway coach. The 21st Century model is a player-centered approach; the coach empowers players, and treats the players as associates working toward a common goal.”

Questions for Reflection

1. “Do I create an educative environment or a training environment?”
2. “Do I punish a lack of skill, a lack of understanding, or a lack of effort?”
3. “How do I react to mistakes?”

Chapter 2: A Dynamic System

Notes by Luke Gromer, [@lukegromer](#)

Introduction

- Two different approaches to learning
 - Dynamic Systems Theory (DST)
 - Children self-organize to solve problems
 - Classical Model
 - “Repetition over and over of an ideal technique”
 - Children mimic the model set forth by the teacher
- Perfect technique = the technique that achieves the goal

Dynamic Systems Theory (DST) in Basketball

- A basketball team is a “complex, adaptive system”
 - Multiple people working together to achieve a common objective with nearly unlimited possibilities for what they can do together
 - Players act cooperatively to respond to the environment
 - The team may plan a certain attack, but players are able to adapt to the changing environment
- Traditionally, coaches have used “simple systems”
 - Play calls that dictate exactly what happens for each player in a specific order and location
 - Players don’t make decisions, they just follow directions and run plays

Teaching with a Dynamic Systems Approach

- Coaches manipulate the environment to elicit specific learning - a.k.a. the constraints-led approach
- Possible constraints - See Table 2.1 in the book
 - Time
 - Dribbles
 - Boundaries/Space
 - # of Players
 - Scoring
 - Rules
- This approach recognizes that “skills are not performed in isolation.”

Conclusions

- The following chapters focus on how to construct and design training to link perception and action together
- Game dynamics must be included in training to ensure transfer of practice to the game

Questions for Reflection

1. Do I believe in the perfect technique or that skills must be adaptable depending on the task and the context?
2. Are my players or team adapted or adaptable?
3. How can I change some drills that isolate skills to include the perception-action coupling by manipulating task constraints?

Chapter 3: Skill Development

Notes by Luke Gromer, [@lukegromer](#)

Quote: “*A smooth sea never made a skilled sailor.*” - English proverb

Introduction

- Difference between skill and technique
 - Technique - motor component of the action
 - Ex: shooting - hand placement, stance, etc.
 - Skill - “combination of action and perception”
 - Perception involves reading cues in the environment to make a decision to act - i.e. shoot the ball
- The classical model emphasizes technique, the 21st Century Model emphasizes skill
 - Classical - repetitions until there is no longer errors
 - 21st Century - “repetition without repetition”

Fundamentals

- “Fundamental is defined as a basic principle that serves as the groundwork of a system.”
 - Basketball has a “technical bias toward fundamentals” that “emphasizes drills and repetitions over games.”
- Practicing technical skills with perception-action couple repetitions that are never exactly the same based on the interaction of all the different environmental factors
 - The perception that happens prior to executing a technique is more important than the technique itself
 - Ex: knowing the technique of how to shoot matters little if you don’t know how to create space and when to shoot it
 - The technique will develop as a response to reading the game and searching for solutions to the problems
 - “Drills practice technique, whereas games practice the full skill.”
 - “Skills are not successful without the coupling of the perception and the action.”

Improving performance

- Two ways to improve performance
 - Reduce errors and uncertainty - classical model
 - Traps for coaches
 - Predictability and Perfection (kills players creativity)
 - These are “fake fundamentals” because the perception-action coupling has been removed
 - “The predictable practice leads to predictable results.”
 - Increase insights and creativity - 21st Century model
 - There are endless possibilities and not situation will be exactly the same
 - “... players learn to adjust and adapt to mistakes.”
 - They are forced to problem solve and find new solutions
- “Skill development occurs when coaches design practices that induce errors. By increasing uncertainty, players make decisions and make plays. They are proactive, searching for opportunities to create open shots for themselves or their teammates rather than avoiding mistakes. Players must practice at the edge of their abilities to improve, and practicing at the edge leads to mistakes.”

Fundamentals and Games

- Pickup games allow players to expand their skills, then practices refine those actions to fit within a system of play
- The solution is to play more games in practice
 - Play small sided and modified games that place the skills in context

Conclusions

- “Technique of skills like shooting and passing is important to learn, but technique alone is insufficient. Players have to learn to read the game and make decisions.”
- We want players that can play inside a system AND outside a system

Questions for Reflection

1. Do my drills focus on technical skills or do they include the tactical decision making similar to a game?
2. Do I focus on reducing errors or increasing insights/creativity?

Chapter 4: Practice Design

Notes by Luke Gromer, [@lukegromer](#)

Quote: “When I was in high school, we had a coach I learned a lot from - all negative... Our coach believed that the answer to everything was drills and conditioning, but the only tragic flaw in his system was that when we linked up, we didn’t know what the hell we were doing.” - John Gaglardi, former Head Coach, St. John’s Abbey and University in Newsday

Introduction

- “The purpose of practice is to retain the learning from one day to the next, and to transfer the learning from practice to game.”
 - Practice objective = learning
 - Learning = retention and transfer
 - Retention - ability to perform skills again after a period of no practice
 - Transfer - take a skill learned in practice and use it in the game
- Transfer doesn’t happen unless practice matches what the game is like
- Training Form vs. Playing Form
 - Playing Form
 - The coach simplifies or modifies the game to emphasize specific skills WITHOUT removing the perceptual cues
 - Training Form
 - Isolating one skill and practicing it without perceptual cues that dictate performance
 - Ignores perception-action coupling
- “The objective of practice activities is not to master the activity, but to improve the skill.”
- Ways to design practice activities to mirror the playing environment and promote transfer
 - Random and variable practice
 - Adding contextual interference
 - Incorporating the perceptual variables that players use to control their actions in the game
 - Manipulating the type and amount of feedback
 - Modifying the game form to emphasize specific skills

Blocked vs. Random Practice

- Constant practice - one version of a skill
- Variable practice - several versions of one skill
- Block practice - "... the practice of a set of one skill followed by a set of a second skill
- Random practice - "... multiple skills interleaved together"
- Constant and Block practice will lead to immediate performance improvement
 - It's a false signal that causes coaches to overvalue them
- Random and Variable practice are full of errors
 - They improve retention and transfer more than constant and block

Contextual Interference

- Contextual Interference (CI) - "... memory or performance disruptions when performing skills and tasks in practice context."
 - Solving unique problems and making mistakes leads to long-term learning
- Basketball is an "open-skill" sport
 - Environm is constantly changing because of external factors
 - Block practice replicates a "closed-skill" sport, but that's not how the game is played
- Skills in low CI environment (constant and block practice) aren't as likely to transfer to a high CI environment (the game)

Representative Task Design

- Classic model progressively teaches idea skills, BUT in the game, constraints may cause the "ideal skill" to not work
- "The technical bias also reduces tactical skills to their technical components"
 - It neglects the fact that the skill is only beneficial if they can use it in context
- Tactical skills (reading the game) has to be paired with technical skills (dribbles, passing, etc.)
 - "Tactical skill practice incorporates technical skills, and retains the perception-action coupling."

Three Categories of Drills - Teaching, Training, Competitive

- Teaching
 - Used to teach a new skill or concept
 - Lots of instruction, frequent stoppages
- Training
 - Repetition of previously learned skills
 - Moderate amount of feedback and instruction
 - Coach uses key words during play to provide reminders and instruction
 - “In a scrimmage, the coach allows the action to continue despite several turnovers, but when the same exact mistake happens three times within a short time frame, she stops the action”
- Competitive
 - Simulate the game
 - Coach can't stop the action every time there are mistakes
 - Players must “adjust and adapt to mistake; to figure out what to do next.”
 - “PACE plays: Plays after critical errors”
 - Feedback is minimal during the game
 - Summary feedback after the competition
- “Because teaching drills involve more frequent stoppages and more instruction, I alternate these drills with competitive drills”

The 1-Second Advantage

- Give offense a slight advantage that forces them to make a quick decision between a couple options
 - Ex: D has two feet in paint, they pass to O, O either shoots or drives depending on where D is
 - Ex: Playing keep away with 12 players, 7v5. Younger players might need it to be 4v2
 - Ex: Chaser Layups to put pressure on the finish

Create Meaningful Drills

- To create good drills that maintain perception-action coupling...
 - Start with the probes - What are you trying to accomplish? Be Specific
 - Identify the constraints - How are the skills performed in a game? Manipulate constraints to make it happen more often in the drill
 - Increase or decrease complexity based on skill level of players

- Decide the volume and timing of feedback and stoppages - Will you be stopping them to teach a lot, or will they experience trial and error?
- Complexity should increase as players get older
 - Limit space
 - Add time constraints
 - Provide less of a numerical advantage

Conclusions

- “Drills should have a specific purpose and solve a specific problem”
- Learning a skill is not just performing the technique, it’s pairing that technique with perception-action coupling to make the right decision
- “Rather than removing a skill from the game to practice the specific skill, manipulate the task to encourage more practice of the skill within the game context”

Questions for Reflection

1. Do my practices feature more constant and block practice or random and variable practice? Is this appropriate for the age and skill of my player?
2. How can I add complexity or simplify my drills to create a progression of drills that enhance learning?
3. Do I include enough practice activities that maintain the perception-action coupling?
4. Do I differentiate between teaching, training, and competitive drills? Do I include periods of practice where I refrain from instruction and feedback to force players to self-correct?

Chapter 5: The Practice Plan

Notes by Luke Gromer, [@lukegromer](#)

Quote: "If I was given eight hours to chop down a tree, I would spend seven hours sharpening my ax." - Abraham Lincoln

Introduction

- You MUST plan
- Too many coaches only plan individuals practices and neglect "the big picture"
- Annual Cycle (for typical HS basketball season)
 - Offseason
 - Recovery - (Individual)
 - General training - (Individual)
 - Specific training - (Individual/Team)
 - Preseason
 - Specific practice - (Team)
 - Pre-League - (Team)
 - Competitive Season
 - League - (Team)
 - Playoffs - (Team)
 - An annual plan helps coaches see the big picture and map out learning more effectively
 - It provides time for all the different aspects necessary to a players development

Recovery and Acquisition

- Recovery
 - "In recovery practice, skills and drills should be familiar, and the instruction should be minimal."
 - When players are fatigues coaches should stick with familiar activities
 - This reduces the load on working memory
- Acquisition
 - "During an acquisition practice, the emphasis is learning, improving, and introducing new concepts."
 - New and less familiar information is introduced in these practices

- It is also dependent on the level you're coaching and the goal
 - Ex: Youth team
 - Every practice (for the most part) will be an acquisition practice

Planning the Practice

- The annual plan should guide the creation of the individual practices
 - The annual plan ensures that you teach what you need to over time and don't get blinded by recent results
- "The practice plan maximizes the practice time, space, and resources."
 - Don't have players standing around or standing in lines!
- Planning focuses and organizes the coach
 - "When a coach ad libs, it is easy to focus on the immediate rather than the most important."
- The practice plan aligns assistants
 - Provides roles
 - Provides responsibilities
 - Provides clarity

What Should a Plan Include?

- Brian's favorite practice
 - John Speraw, at U.C. Irvine (now USA Volleyball men's HC)
 - Wrote out a practice plan for coaches and on a whiteboard for the whole team to see
 - Management details were written out
 - I.e. teams, jersey colors, balls, etc.
- Includes activities and management details in your plan!
- "Based on your philosophy and beliefs, every practice plan should include the three areas that you emphasize."

Factors Affecting Practice

- “One game or practice should not alter one’s philosophy, but previous games and practices and the upcoming schedule influence each practice plan, especially in terms of the acquisition and recovery emphasis.”
- Factors
 - Practice time between games
 - Upcoming games
 - Time of season
 - Equipment and space
 - Age of players
 - Skill of players
- Take notes during practice on how things are going
 - It will help you build your next plan alongside your annual plan

What Makes a Good Practice?

- Every player is active
 - Little to no standing in lines or in play
 - In play example: offensive players in shell drill
- The drills reinforce the desired habits
- The drills reinforce the system of play
- Practice activities are purposeful
 - “If you cannot answer why you are doing a drill, eliminate it.”
- “The point of practice is to improve game performance, not to practice for the sake of practice. When practice is not improving game performance, it is time to reconsider the practice activities.”
- Keep it simple and effective
 - Avoid long explanations of drills
 - Keep drills simple, then manipulate the game to emphasize what you want them to learn or do
- Keep it challenging
 - Avoid monotonous drills that players just try to get through without any effort or mental concentration
 - Ex: Practicing Layups
 - A player cannot do the same finish as the player that when in front of them
 - “When a task or skill is too easy, find ways to add complexity.”

What to Avoid?

- “The cardinal sins of coaches are the 3 Ls: Laps, lines, and lectures.”
- “Players learn through doing, not through listening to lectures. Play more, and talk less.”
- Avoid wasted time waiting for players at the beginning of practice, get the kids that are there playing a game!

Altering the Plan

- John Wooden's philosophy
 - Avoided altering the practice plan
 - Avoid deviation to keep things more efficient and allow for coach to explain to players what's coming up front
- Brina's philosophy
 - Decision Training (DT) style of coaching
 - Does NOT follow the classic model of simple to complex
 - “I start with a game, and the game dictates the follow-up drills.”
 - Game - Identify issue - drill to remedy issue - game
- Plan out some substitute drills or keep a bank of drills you can choose from
 - This allows you to be more flexible and responsive
 - It will also maintain the flow of practice better

Conclusions

- Annual plan + Coach's philosophy = Outline for a season
 - Outline individual and team development
- “Planning practice will not insure a good practice or compensate for bad coaching. However, the process of planning the practice... will prepare the coach mentally for practice.”

Practice Plan Template

Team Meeting

- Come up with a routine that clear signals to players when it's time to focus their mind on practice
- “The beginning does not need to be elaborate, and may be as simple as a team huddle to explain the practice or focus on a motivational quote.”

Initial Activity

- Brian's
 - Uses a “dynamic warmup to teach and train basic movements.”
 - With younger players
 - Tag or keep away with or without basketballs
 - Or, start with a SSG to train decisions and engage them from the beginning

Practice Activities

- It's dependent upon what you want to emphasize
- Brian's practices
 - Emphasis: shooting, transition defense, and pick-and-roll play
 - Warmup - Transition D - Shooting - SSGs - 5v5
 - He changes constraints within SSGs or 5v5 to change the focus
 - Ex: Rules/reactions, modification to the scoring, etc.

Final Activity

- “... finish on a high note.”
- Examples:
 - Special situations
 - Competitive Shooting
- End drills on a positive and competitive notes instead of letting them fizzle out
 - Play games or drills to a lower score
 - Shooting - set a number of makes and finish when the first team gets it

Competitive Cauldron

“Competition measures people, but also develops them.” - Anson Dorrance

Introduction

- When effort in practice does not transfer to game performance, something is wrong.”
 - When the effort isn't game-like in practice, players will be unprepared for games
- The physical AND psychological demands of the game must be somewhat replicated in practice
- The Competitive Cauldron
 - It's all about “clos[ing] the gap between training and competition.”

- Brian's Cauldron
 - Tracked winners for every competitive drill
 - At the end of each practice, the daily winner avoided any post-practice conditioning
 - I kept a running total for the season
 - The running tally decided my starters

Tracking Winners

- "Every competitive drill has a winner and a loser"
- Have a table that allows you to record wins for each player within each competitive drill

Daily Winners

- Summed the wins at the end of practice and winner avoided conditioning
 - With girls:
 - The girl always did the conditioning with her teammates anyway
 - They liked the public acknowledgment of a good practice
 - With boys:
 - It was more competitive and involved their egos

Running Total

- Add daily wins to a running total
- How Brian used the total:
 - Picked teams for games based off the ranking of his 12 players
 - Ex: Odds (1, 3, etc.) vs Evens (2, 4, etc.)
 - Forced players to adapt and play different roles on different days

Starters

- When he started using the Cauldron he was a JV coach and his varsity coach was adamant that every player play in every game
- He used the Cauldron rankings to determine starters since every kid would play anyway
 - Not the best approach competitively, but it was great for development
 - Increased motivation and ultimately skill development

Implementation

- Explain the Cauldron to players before you start using it
- Make sure they know how it will be used and that it applies to everyone equally

Positives

- It eliminated complaints about not starting
- He didn't have to punish players for missing practice, they knew they were missing opportunities to accumulate wins
- Their bench was deeper and fresher because they didn't necessarily start the 5 best players, it was the top 5 in the Cauldron
- 4 Positives
 - Control
 - Motivation
 - Skill Development
 - Opportunity

Control

- Players are in control with the Competitive Cauldron
- It was a transparent process
- They change their ranking and opportunities

Motivation

- Kids love to play and compete
- The relationship between practice and games is more direct when your drills/games are competitive
- "Greater engagement leads to greater effort, and greater effort creates the potential for more improvement."

Skill Development

- Everyone got better because of the competition
- Players didn't settle into roles and develop fixed mindsets
- Everyone received equal reps and opportunities in practice to improve so their development wasn't skewed to the starters
- "The more that each player improved, the more that the others improved because of the mutual learning curve."

Opportunity

- Too often coaches have carved out roles for players by the end of tryouts
 - It's impossible for a kid to change a coach's perception in "two minutes of garbage time"
- We have no idea who will actually develop and grow at what rate
 - Give all of your players opportunities and avoid putting them in boxes

Negatives

- “An emphasis on competition in practice could lead to a fixed mindset.”
 - Player isn’t winning and think they’re not talented enough
- “Those who attribute failure to a fixed lack of talent are demotivated by mistakes and fear failure because it suggests they are not good enough. When they change their perceptions and see that effort improves performance, mistakes become a part of the learning process.”
 - Keep players focused on the process over the outcome
- Injuries
 - It’s not fair for a player to be penalized for being injured
 - Adjust accordingly

Future Ideas

- Differentiate drills
 - Separate 1v1, 2v2, 3v3, etc. fro each other in your tracking
 - Provides deeper insights on player performance and skill
- Weight the Matrix
 - Create a weighted system that takes into account which wins are the most valuable or more valuable than others
- Rotate Wins
 - Drop one day of scores every time you add new scores
 - Ex: On day 11, you drop day 1
 - Determining ranking based off the past 10 days

Conclusions

- It’s not for everyone
- It will foster a culture of competitiveness if implemented well

Questions for Reflection

1. Do I have a plan to adjust practices throughout the week based on the proximity of games?
2. Do I need a strict plan or can I be more flexible and adaptive with my practice plan?
3. Do I vary the amount and timing of feedback during drills (teaching, training, and competitive)? Do I create practice activities where players have to play through mistakes without coach feedback?
4. How do I start practices?
5. Is the competitive cauldron something I should try?

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Chapter 6: Instruction and Demonstrations

Notes by Luke Gromer, [@lukegromer](#)

Quote:

"I hear, I forget

I see, I remember

I do, I understand

- Ancient Chinese Proverb

Introduction

- Coaches are teachers!
- 3 primary means of teaching
 - Demonstrations
 - Feedback
 - Instruction
- Instruction and demonstration are a large portion of a coaches behaviors in practice
 - "Because instructions comprise such a large part of coaching, coaches should be clear and concise with instructions and focus on one topic at a time."
 - Terms should be age appropriate
 - Instruction should be given in a positive tone
 - Telling and showing the correct way to do things
 - Attention of players should be directed to the important details
 - Coaches should use cue words to remind players of previous taught concepts
- The IDEA Method
 - Introduce
 - Drill or skill into game context
 - Use offense AND defense
 - Demonstrate
 - Demonstrate without defense and direct their attention to the important coaching point
 - Introduce the cues that you will use
 - Explain
 - Verbal explanation that accompany the demonstrations
 - Attend
 - Give feedback as players attempt to execute

- Provide as much individual feedback as possible
- If multiple players are making the same mistakes, then reteach to whole ground

External and Internal Focus of Attention

- Use analogies and imagery to cue players with an external focus instead of an internal focus
 - Example:
 - Instead of, “Bend your knees” to a shooter
 - Say, “Shoot the ball higher” to a shooter
 - Conscious control is too slow and often disrupts performance when players start thinking about the little details instead of just reacting

Explicit vs. Implicit

- Explicit learning - the coach uses verbal instructions to get players to learn a skill
 - This is the classic model and is often around 70% of the instructional time
- Implicit learning - skills that players learn and discover on their own through experimentation
 - Implicit skills are “more robust under pressure or fatigue, as players resist the over-thinking or paralysis by analysis that may occur with skills learned explicitly.”
 - Use analogies to teach implicit skills
 - Example:
 - Brian was teaching young shooters and wanted them to shoot it higher
 - He told them, “shoot the ball out of a telephone booth” instead of a typical thing like, “bend your knees”
 - Let players PLAY to develop skills implicitly
 - Design games and use constraints that force players to use certain skills within play
 - “... I create the environment that allows for this exploration.”

Questioning

- Questioning “forces the players to solve the problem.”
 - Example:
 - “There are three ways that the on-ball defender can play the screen” vs. “What are the possible ways that the on-ball defender can defend a pick-and-roll?”
 - Telling them is quicker, but questioning engages players mentally, which causes deeper learning
- Warn players about your questioning and make sure that they know it’s okay to provide a wrong answer!
- Low-order vs. High-order Questions
 - Low-order
 - Tend to be yes/no questions
 - High-order
 - More abstract
 - Don’t always have a right or wrong answer
- Use questioning as a form of feedback
 - Example: A player turns the ball over
 - “What did you see?” or “What happened?”
 - Sometimes the coach thinks something happened for a certain reason, but it was actually a different perceptual cue that the play read

Demonstrations

- Demonstrations are about showing players a model to follow
 - The potential downside: “... the player may attempt to replicate the expert model rather than finding their own skill performance...”
- The most important thing is that the player learns to solve the problem (i.e. make a move to get past a defender) instead of just repeating an expert model
- Often our demonstrations limit players
 - Example: Doing a finishing move for a certain sport vs. Doing a finishing move from random spots that they might be attacking from in a game

Conclusions

- “The classic model emphasizes the coach’s role and places a premium on following directions. The 21st Century model creates active learners and encourages players to discover the best solutions to different movement problems.”

Questions for Reflection

1. What percentage of my coaching behaviors are instructional as compared to praises, scolds, and other behaviors? Do I need to increase my instructions?
2. Do I frequently use internal cues in my instructions?
3. What analogies can I develop to teach certain skills?
4. Do my demonstrations unintentionally limit players? Should I reduce my demonstrations or use player demonstrations?
5. How can I incorporate questions? Am I comfortable coaching with a questioning approach?

Chapter 7: Feedback

Notes by Luke Gromer, [@lukegromer](#)

Quote: "We all need people who will give us feedback. That's how we improve." - Bill Gates

Introduction

- Feedback is an integral part of coaching
 - Specific vs Generic
 - Specific focuses on an action or skill
 - "Good job cutting all the way to the rim"
 - Generic doesn't tell the player what to repeat
 - "Good job!"
 - Informational vs Non-informational
 - Informational provides information to a player so they can change their future performance
 - Example: "Use a bounce pass on a backdoor pass"
 - "The informational feedback did not attack the person, but promoted change."
 - Non-informational doesn't provide useful information and often is a scolding
 - Example: "Stop turning the ball over"
 - Positive vs Negative
 - Praising the actions a coach wants repeated
 - Ex: "Way to see the open player"
 - Players respond better to positive feedback!
 - Negative feedback focuses on what the coach wants to eliminate
 - Ex: "Don't throw an air pass there"
 - Group vs Individual
 - "... praise an individual player in front of the group, but address the entire group when critiquing or criticizing."
 - Intrinsic vs Extrinsic
 - Intrinsic feedback comes from a players own senses during a game
 - Extrinsic feedback comes from an outside source, i.e. a coach

- “When feedback centers on effort, rather than ability, players tend to develop a growth mindset. When the feedback centers on ability or talent rather than effort, players tend to develop a fixed mindset. Those with a growth mindset have a healthier attitude toward practice and learning, a hunger for feedback, a greater ability to deal with setbacks and better performance over time.”
 - “Those extra shots paid off tonight” vs “You’re a natural shooter”

Types of Feedback

- Knowledge of Results (KR) vs Knowledge of Performance (KP)
 - KR
 - Obvious and instantaneous
 - Ex: Missing a shot
 - “KR feedback is redundant; players do not need the coach to tell them that they missed.”
 - KP
 - “Information about the actual movement”
 - Focused on helping them improve future performance
- “Feedback should be positive and use analogies or another method to maintain an external focus of attention.”

Feedback Traps

- “Coaches have been taught that feedback should be specific, immediate, and frequent.”
- Too much feedback can make players feel like they have no autonomy and confuse them as they always focus on another error they’re making
 - “High surveillance - the constant or periodic monitoring of a subordinate’s behavior by a supervisor - leads to reduced intrinsic motivation.”
 - Constant negative feedback is particularly demoralizing and demotivating for players
 - It robs them of opportunities to self-correct and discover solutions
- “Our purpose with feedback is to enhance one’s learning.”
- 5 Feedback Traps
 - More is better
 - Offering feedback too quickly
 - Giving too much information
 - Interfering with automatic processing
 - Misdirecting attentional focus

Trap #1 - More is Better

- “Reduce or delayed feedback has been shown to improve retention and transfer of skills.”
- Options to reduce or delay
 - Pre-determine what you will give feedback on and stick to that
 - Summary feedback after a certain number of repetitions
 - Self-controlled feedback when the coaches gives feedback upon players request
- “When I see a consistent error or when the player asks for feedback, I provide feedback. Otherwise, I comment less frequently now than when I was a noun coach who believed players needed immediate feedback after every repetition.”

Trap #2 - Offering Feedback too Quickly

- Mechanistic vs Dynamic viewpoints
 - Mechanistic
 - There is ONE idea or optimal way to perform a skill and feedback is given when mistakes are made
 - Dynamic
 - “... suggests that skill execution emerges out of a process of self-organization”
- “Immediate feedback interferes with the players opportunity to self-organize.”
- Let them try to figure it out before introducing our idea

Trap #3 - Giving too Much Information

- Declarative Knowledge vs. Procedural Knowledge
 - “Declarative knowledge is knowing that...”
 - Ex: Player knows that they should do X in this situation
 - “Procedural knowledge is know how”
 - Ex: Player knows how to do X in this situation
- Simplify your teaching so that players have less to think about and can react more quickly to perceptual cues

Trap #4 - Interfering with Automatic Process

- When a skill is learned, it is stored in our procedural memory and thus automated
 - Players decide to use a skill faster than they can have a conscious thought
- “Sport skills are performed in a short time frame and combine many complex movements into one skill. When an athlete attempts to control these movements consciously the setting skill takes too long to coordinate, and the executing is less accurate.”
- “When the activity in the prefrontal cortex disrupts the skill execution, we say that the athlete suffers from paralysis by analysis. When the paralysis by analysis leads to suboptimal performance because the player felt pressure to perform, we say that the athlete choked.”
- Example:
 - Coaches often overload players with information at the end of a game and players are trying to run a play so that neglect of read perceptual cues

Trap #5 - Misdirecting Attention Focus

- Internal Focus vs External Focus
 - Internal
 - Attention is on the action
 - Ex: “Bend your knees”
 - External
 - Attention is on the effect of the action
 - Ex: “Shoot with more air under the ball”
 - Give feedback that shifts the attention outside the body so that players aren’t consciously thinking about the execution of their skill - “or say nothing at all”
 - “The misdirection of attention interferes with automatic processing.”
 - Let players and their bodies figure out how to solve the problem

Conclusions

- “Feedback is critical to skill development, but not all feedback is good. Feedback should have a purpose, whether that purpose is motivational or instructional.”
- “... the silence may be golden.”
 - Too many people think a quiet coach isn’t coaching, but in fact close observation is often the most powerful tool a coach has
 - Avoid correcting every mistake
 - Give “reduced or delayed feedback”
 - It does not mean you’re a lazy coach
- Wait to give feedback until you see the same mistake happening multiple times
 - Avoid correcting everything!

Questions for Reflection

1. Is my feedback specific or general? Do I habitually say, “Good,” after every repetition for no real reason?
2. Is my feedback informational or non-informational?
3. Does my feedback enhance my players’ learning?
4. Do I allow players the time to self-correct prior to providing feedback?

Appendix

- See the appendix for a great list of drills and games with explanations