

## Basketball's John Wooden

# WHAT A COACH CAN TEACH A TEACHER

UCLA coach John Wooden took all kinds of players and, year after year, taught them to be champions. His educational technique passed a rougher test than a classroom teacher ever faces. By scientific analysis, two researchers found that his precise, intense methods may be more effective than the clumsy tricks of standard pedagogy.

by Roland G. Tharp  
and Ronald Gallimore

JOHN WOODEN IS LIKELY TO BE REMEMBERED as the greatest coach in the history of basketball, if not in all college athletics. Before he retired last spring, he coached the UCLA basketball team to 10 national championships in 12 years, a record unapproached by any other coach; and he is the only person ever inducted into the National Basketball Hall of Fame both as a player (Purdue) and as a coach. It was our good fortune to study the last and finest of John Wooden's seasons (1974-1975) at the University of California at Los Angeles, and to preserve a record of the methods of this most successful coach-teacher in the history of college athletics.

Our interest in Wooden grew out of our research on educational method. Clinical and educational psychology increasingly have relied on principles derived from laboratory research and then tested in the clinic and school. But seldom have psychologists actually

studied in detail a master of teaching, possibly because it is so difficult to identify a true master in the ordinary classroom. No national competition ruthlessly ranks teachers by their ability to bring out the best in their students.

The careful study of a teacher with incontrovertible credentials should contribute, it seemed to us, to a better understanding of human learning. John Wooden's 10 national championships and 14 conference championships should qualify him as a master teacher worthy of such study and analysis.

From his days as a high-school star in a small Indiana town, Wooden enjoyed unwavering success in his basketball career. An All-American guard at Purdue, he rejected professional team offers and humbly went to teach and coach in a Hoosier high school. He quickly proved himself a winning coach, moved into the college ranks at Indiana State, and promptly led his team to second place in the NAIA tournament. Big-time bids came immediately from Minnesota and UCLA. Wooden chose the latter, and in 1948, after UCLA had ended a 12-13 losing season, began building what became the most spectacular record in collegiate history. Sportswriters soon tagged Wooden as the Wizard of Westwood, a label that competing coaches would verify as precise, not hyperbole. Skeptics might argue that he made his reputation on great athletes who came to UCLA, but he was never noted for his recruiting and he won with very different kinds of players. He won with big men (Abdul-Jabbar and Walton) and he won with the smallest team, compared to the competition, ever to win a national championship. He won with teams of incredible talent, and with teams of modest talent. His last team looked, at midseason, as if it would place no better than third in the Pacific Eight Conference, let alone win the national championship.

Off the court, John Wooden is the image of the ideal grandfather. He is a testifying Christian, thoroughly generous in victory and defeat. He does not smoke, drink, or swear. He answers every signed letter himself. He teaches that "basketball is not the ultimate. It is of small importance in comparison to the total life we live." He says, convincingly, that though he has had players whom he has not admired, he has loved every one. He takes as much

or more pride in players who have gone on into law, or medicine, or the Peace Corps, as those who have become professional players. From the testimony of his players through the years, it is evident that they reciprocate his devotion.

**Pyramid of Success.** On the court, Wooden is something else. While some college coaches, and successful ones, see their roles mostly as group facilitators or emotional managers, or even administrators, Wooden's system of basketball requires teaching and learning, everything from complex set-offense options to how to pull your socks on right. He has the command presence of a Knute Rockne, General Neyland, Bear Bryant or Vince Lombardi.

Fundamentals, discipline, hard work, selflessness, control—these are the visible elements of the Wooden system. But it also includes picking up the soap from the shower, stacking towels, personal grooming, training-table diet, and a concept for character building that he calls the "pyramid of success."

On the first day of practice in November 1974, we sat, full of preconceptions, in the dimly lit stands of Pauley Pavilion watching the warm-up drills. We wanted to observe John Wooden's teaching techniques directly, and we had clear notions about the appropriate categories to observe. We expected to find instances of reinforcement, punishment, modeling and instructions. In fact, we intended to employ the standard observation-category system that we have used in school classrooms to do extensive research and teacher training.

Some eight practices and several weeks later, we had tested these ideas against the reality of coaching, and against our ability to achieve reliable observations. Our final 10-category system is summarized in the table that follows. While our standard categories covered most of Wooden's teaching devices, we had to add two new ones to cover what he did. One was the *scold/reinstruction*, a criticism followed instantly by how-to-do-it-right; the other could only be called the *hustle*. Both devices are obvious in any coaching situation, but not in the classroom. We suspect, however, that both are used by successful teachers and should be added to the technical arsenal of pedagogy.

By mid-December, our observation system was firm. The reliability of cod-

ing between us was above 90 percent in all categories, and it held there on periodic checks throughout the season. The category system was comprehensive, in that we had to fall back on the miscellaneous category, *other*, for only 2.4 percent of Wooden's teaching actions. The data analyzed here are drawn from 15 practice sessions that we sampled from the remainder of the season and recorded in their entirety. We sat in the front row of Pauley Pavilion looking down on the huge court, but we faded into the scattering of practice visitors. We could see and hear well enough. Less than seven percent of Wooden's teaching actions were uncodable because of our distance.

**Wooden's Moves.** Our data are gathered solely from practice sessions. They include no other contacts between coach and players. For Wooden, on-the-floor action may cover more of total interaction than it would for some other coaches. As he says in his autobiography, "My talks with the players usually take place right on the floor during practice. I'm not a believer in meetings or so-called chalk talks or blackboard drills." But Wooden also went beyond basketball to work with players on their personal problems and careers. The respect and affection players feel for him arose in part from their informal contacts.

This study is not a full description of all the teaching that went on in practice. We did not record the teaching actions of Wooden's two assistants, who took primary responsibility for perhaps 10 percent of the practice units. We analyzed only the moves of Wooden himself—2,326 acts of teaching over 30 hours that we recorded and classified in our 10 categories.

In a typical practice session, the players limber up for about half an hour. They scatter informally around the huge gym doing practice shots and dribbling. Precisely at 3:30, Wooden's whistle galvanizes every man. Players quickly line up and begin to run backward and forward in grueling floor-length maneuvers. The whistle transforms Wooden, too. He believes that a coach makes a mistake by being too nice a guy to work his team up to that hard edge of conditioning that makes the difference in a game's final minutes. He becomes less the friendly grandfather and more the Marine sergeant.

**No Room for Grandstanders.** Some players who were individual stars in

high school are eager, when they get to UCLA, to dramatize their skill by fancy ballhandling, jazzy dribbling, and behind-the-back or blind passing. They quickly learn that showboating is forbidden. Concentration on fundamentals is the name of the Wooden game, and on his superbly drilled teams there's no room for the grandstanding ego.

In these conditioning drills; Wooden's chief teaching method is immediately apparent. He continually shouts *instructions* (first category in the table) on the fundamentals of movement, dribbling and defense. Instructions constitute half (50.3 percent) of his total teaching acts, and even this statistic does not adequately reflect the heavy freight of information Wooden communicates.

As can be seen by the category definitions in the table, information is also contained in categories such as *scold/reinstruction* ("Don't do X, do Y.") (eight percent), *modeling-positive* (2.8 percent), and *modeling-negative* (1.6 percent). Furthermore, five percent of his *praises* and *scolds* are coded as individual because he embedded a player's name in his shout about a specific desirable or undesirable behavior. Assuming that the behavior we failed to

classify (*other* category) would be similarly specific, we can state that at least 75 percent of Wooden's teaching acts carry information. This information density is clearly a significant feature of his success. When he coaches, Wooden wastes few words on generalities.

The information, it must be emphasized, is highly repetitive. Repetition is a canon in Wooden's learning theory. "I believe" he says, "in learning by repetition to the point where everything becomes automatic . . . the best teacher is repetition, day after day, throughout the season."

A second drill is often fast-break practice. During this and similar drills, hustles occur most often (12.7 percent of all acts). A hustle, defined as verbal statements to activate or intensify previously instructed behavior, is in reality the coach shouting, "Drive! Drive! Harder! Hustle! Hustle!" In addition to their function as cues, hustles may serve some players as scolds and others as positive reinforcement. Some instructions also serve this double role.

Wooden values intensity almost as highly as he does discipline and self-control. Hustles to stimulate this intensity come with varying frequency in all units of practice. Of all the

John Wooden at Work: How He Talks to His Team

Code	Category	Description	Percent of Total Communications
I	Instructions	Verbal statements about what to do, or how to do it	50.3
H	Hustles	Verbal statements to activate or intensify previously instructed behavior	12.7
M+	Modeling-positive	A demonstration of how to perform	2.8
M-	Modeling-negative	A demonstration of how not to perform	1.6
V+	Praises	Verbal compliments, encouragements	6.9
V-	Scolds	Verbal statements of displeasure	6.6
NV+	Nonverbal reward	Nonverbal compliments or encouragements (smiles, pats, jokes)	1.2
NV-	Nonverbal punishment	This infrequent category included only scowls, gestures of despair, and temporary removal of a player from scrimmage, usually to shoot free throws by himself	Trace
W	Scold/reinstruction	A combination category: a single verbal behavior which refers to a specific act, contains a clear scold, and reasserts a previously instructed behavior, e.g., "How many times do I have to tell you to follow through with your head when shooting?"	8.0
O	Other	Any behavior not falling into the above categories	2.4
X	Uncodable	The behavior could not be clearly heard or seen	6.6

categories we observed, this one seems to be most specific to sport and perhaps less applicable in teaching activities that do not demand intense physical effort. However, it may be that educational research has simply missed a technique that many effective teachers use instinctively, but less obviously, to focus attention on achievement.

The aspect of Wooden's teaching with the greatest theoretical value is his unexpected mix of social reinforcement and punishment. In direct contrast to the techniques advocated by many behavior modifiers, praise is a minor feature of Wooden's teaching methods. Total positive social reinforcements, verbals and nonverbals, constitute less than seven percent of total acts. But scolds add up to 14.6 percent (see *scolds* plus *scold/reinstruction* in the table); Wooden scolds twice as much as he rewards. *Withering Reproofs*. Since this finding deserves explanation, we should be clear about the phenomenon itself. In no sense is Wooden mean or punitive. He almost always ends practice with a light touch, a joke, an affectionate pat on the back for players on the tired trek to the locker room. He never uses physical punishment such as lap-running. He prefers to keep practice a desirable activity. But between the whistles that start and end practice, he is a dead-serious teacher whose reproofs can be so withering that observing psychologists shrink in their seats. Example: "No, No, No. Some of you are just standing around watching. Play your man tight before he gets the ball. Goodness gracious sakes, use the head the good Lord gave you."

While we were concerned solely with what we could observe, it is also obvious that Wooden's off-court relationship with the players is a factor in the player response to his teaching. Some clues to the nature of this player-coach relationship are evident in Wooden's autobiography. "I often tell my players," Wooden says, "that next to my own flesh and blood, they are the closest to me. They are my children. I get wrapped up in them, their lives and their problems."

It is clear to the players that Wooden is truly concerned about them. He takes a group of young men, many with superstar potential, and convinces them that they can best serve their self-interest by subordinating personal pride to team effort. Fairness, almost an obsession in his autobiography, has

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unquestionably helped individual players accept Wooden decisions they did not like.

Wooden's negligible use of praise is particularly instructive when you consider the motivational level of his students. There may be no more highly motivated groups trying to learn something than these young athletes for whom success can mean fame and fortune, plus more immediate social benefits. Under such conditions of maximum incentive, praise on the floor becomes virtually unnecessary. For students less motivated than Wooden's players, social rewards may be necessary as incentive to keep them in reach of instructions, modeling, feedback, and other activities that do produce learning. These data should add to the growing conviction that reinforcement does not "stamp in" the stimulus-response bonds of human learning.

The majority of Wooden's scolds are loaded with instructions. His complex statements simultaneously scold and specifically reinstruct: "I have been telling some of you for three years not to wind up when you throw the ball! Pass from the chest!" These scold/reinstructions are often shouted during a group activity when no one can be sure who is the offending member, and consequently everyone tries to put himself in order.

*Praise and Scold*. The identity of the player may sometimes be in doubt when Wooden reacts, but the nature of the mistake being made rarely is. Perhaps the example of greatest artistry is his use of modeling. His demonstrations are rarely longer than five seconds, but they are of such clarity as to leave an image in memory much like a textbook sketch. He models with his body most often during patterned-offense drills, or half-court scrimmage,

when he will whistle down play. He promptly demonstrates the correct way to perform an act (*modeling-positive*, M+), and then imitates the incorrect way the player has just performed (*modeling-negative*, M-). He then does it the right way again. This sequence of M+, M-, M+ is Wooden's typical pattern, and appears to be an effective way of providing both feedback and discrimination training.

Halfway through the study we began to record the names of players to whom Wooden directed his remarks. Individual praises and scolds were about equal in number, but there was enormous variation from man to man. Some players were mostly praised, some mostly scolded. Some got lots of both, and some hardly any at all. What he said to the individuals was brief, sharply etched, and rarely interrupted the flow of action. And it was always instructive.

Such Wooden techniques have already influenced our classroom work. His scold/reinstruction device, which we think of as a "Wooden," has turned out to be very useful in teaching children at our experimental school in Hawaii. We get the best results from a rich mix of praise and Woodens. We are still trying to find a way to use his modeling style for cognitive material.

Teaching basketball is difficult, and a piecemeal description of these teaching techniques does not tell the complexity of the process. Patterned-offense drills are as intricate as ballet, yet as freeform as improvisational theater. When one man exercises an option, the other four answer with a series of choices and contingencies that make each series new yet determined, requiring both artistry and discipline. The options have to be learned so thoroughly that they become automatic. There is no time for thought to become conscious. Teaching the players to perform these patterns with precision, against equally talented and motivated opponents, is a task for a virtuoso teacher.

It all comes together at game-condition scrimmages, sometimes with all three coaches racing around the sidelines shouting simultaneous streams of instructions and comment. Wooden's cascade of instructions is interrupted only by his note-taking. Offending players are replaced quickly, as punishment (thus the trace of NV-), and their going is punctuated by loud, public scold/reinstructions. It sounds

like a harangue, but it's not—there are V+s, and everything is specific as he hones them to a fine edge:

"Really hustle, really hustle; take the ball softly, you're receiving a pass, not intercepting it. Crisp passes, really snap them. Good, Richard; that's just what I want. Now take it, André, soft, right under your chin! Right!"

Wooden's last year was his finest because it tested his teaching and motivating skills to their limit. As any sport fan knows, his 1974-1975 team was not crowded with superstars. It fell out of first place early in the season. Most sportswriters put Indiana at the top, though Kentucky was a contender and Louisville a favorite sleeper. But UCLA beat Louisville by one point in overtime at the NCAA semifinals. Since Kentucky had impressively knocked out Indiana, UCLA faced a fired-up Kentucky team in the finals.

At that moment, two days before the game, Wooden announced his retirement. The rumor had been around since his heart ailment, but now his last Bruin team was about to play his last game. They had to hustle to win, of course, and in their 92-85 victory they simply showed what Wooden meant in his pregame pitch about fundamentals. Each player should, he concluded, "come out of the game, win or lose, with your head high; only you and your Lord will know, but the only thing that matters is that you really mean it."

Sports differ from other learned activities in many specifics. Coaches push athletes to their psychobiological limits. Performance is measured by simple numbers on a scoreboard. Competition among college teams and professional teams has inspired a remarkable arsenal of testing and teaching technology. Psychological and physical tests measure anything from aggression to oxygen absorption, and the elaborate arithmetic of each sport, especially baseball and football, provides a precise profile of each player's strengths and failings. Inside a football team, the worst time of the week is the "Monday murder" when players watch their every move being re-run and criticized on the film of a game that is still alive in each aching muscle. No classroom ever gets that feedback.

Educational psychology has developed its own technology and theory, but with far less emphasis on results. We often felt that our standard model of teaching was primitive in comparison with college basketball's sophisti-

cated techniques. The difference may be useful. With players who are highly motivated toward specific goals, John Wooden did not need to hand out quick rewards on the practice court. But even in that highly-charged situation, he heightened the intensity of the learning effort. His hustles, as we call them, have special value in physical learning. Similar intensity is used in the teaching of drama, dance, music and military tactics. Even in more cognitive studies, good teachers use hustles to intensify student effort. For instance, in preparing for oral examinations in most disciplines, from math to psychology, Ph.D. candidates are tuning their minds to survive the intense competition of the academic world. If such concentrated effort ever finds its way into the ordinary classroom, the results might be rewarding.

An outcome like that would please John Wooden. "Life to him is a one-room schoolhouse," wrote sports columnist Jim Murray. "A pedagogue is all he ever wanted to be." But Wooden's best teaching technique is hard to pass along. Not every teacher can use the model of his own life to inspire students beyond their talents. □

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