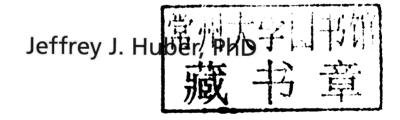


Applying Educational Psychology in Coaching Athletes





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To my wife, Lesa, and our children,
Julia and David. Thanks for your love,
support, and understanding
during my coaching career.
You were always on my mind
and in my heart
and you are the most important
people in my life.

And to all those wonderful athletes who gave me their heart, trust, and devotion. Many of your stories are in this book.

PREFACE

If my coaching career were an Aesop's fable, it would have to be *The Tortoise* and the Hare. I would be the tortoise and Michael the hare.

About the time when I began coaching, Michael, a very successful former athlete, also began coaching. He was a multiple-time U.S. national champion and U.S. Olympian, so naturally he attracted some of the best recruits in the country. He knew the sport well and was successful right out of the chute. In contrast, I attracted zero top recruits and, frankly, I had much to learn about the sport and about coaching. While he won quickly and won big, I stayed home, plodding along and reading about his athletes' exploits. After a few years, Michael left the sport to pursue a business venture. During his absence I earned a doctorate in educational psychology with an emphasis in cognition and motor learning. Educational psychology is the study of applying principles of psychology to the teaching and learning process. My wife also earned her doctorate and we then loaded up the car with our two very young children, cat, and dog and drove to Bloomington, Indiana.

For the first 6 years at Indiana University, I taught classes on educational psychology for teachers, preparing students to apply principles of psychology to the teaching and learning process in their future classrooms. I also coached the men's and women's diving teams. This point in my life reminds me of Robert Frost's poem "The Road Not Taken."

. . . I shall be telling this with a sigh Somewhere ages and ages hence: Two roads diverged in a wood, and I— I took the one less traveled by, And that has made all the difference. [Robert Frost, "The Road Not Taken," 1920]

In my mind, I had found two diverging roads in the wood—coaching and teaching—and I intended to take both. But at some point things became blurry. I couldn't see a difference anymore between teaching and coaching or between students and athletes. It all seemed to be the same thing. Theories, concepts, paradigms, principles, laws, and research data that influence teaching and student learning in the classroom seemed equally effective for influencing coaching and athlete learning in the practice setting. Factors that make for effective teaching seemed to me to also make for effective coaching. Teachers of excellence and coaches of excellence essentially do the same things. Instead of traveling two separate roads, I had in fact been traveling the same road. Being a teacher and being a coach are the same thing.

Eight years after he left, Michael returned to the sport. And things had changed. Or, rather, *I* had changed. Since his departure I had become a more effective coach by better understanding how athletes learn and how coaches teach. At the NCAA championship that year he walked up to me, smiled, and good-naturedly asked, "What happened?" What he meant was "How did you become so successful as a coach since I last saw you?" The previous year I had been named U.S. Olympic coach for a second Olympic Games and—I'm not going to lie—at that NCAA championship I had a dominant team, so much so that I was voted NCAA Coach of the Year. It may have taken over two decades but the tortoise had finally victoriously crossed the finish line.

My reason for coaching, however, had nothing to do with any personal motivation for becoming an Olympic coach or an NCAA Coach of the Year. It had everything to do with Jimmy. Our paths fortuitously crossed when I volunteered to coach at Cypress College in Southern California. I was pursuing a master's degree in English at the time but felt compelled to repay the sport that I had recently retired from and that had generously given me so much. Cypress College didn't pay me anything to coach their men's and women's teams but I was provided the opportunity to run an age group program for free. In other words, I wouldn't be charged pool rent. I really didn't want or have the time to run an age group program because I was attending graduate school full-time and working for Hank—my dad—on the side but, of course, when I heard the words *for free*, I couldn't resist. That wasn't such a lucrative idea. The most money I ever made in one month was \$200. But in hindsight it turned out to be a brilliant idea for finding a career path.

Two months after I launched (instead of ocean liner think row boat) my age-group program, two 14-year-old boys wandered into the pool—Brian and Jimmy. Brian was a good-looking and physically talented boy while Jimmy was a gangly, acne-faced, uncoordinated, and physically awkward lad. Immediately I had visions of grandeur for Brian. He was going to be my first superstar and Jimmy—well, Jimmy was going to be a nonentity on the team and most likely eventually fade away.

I couldn't have been more wrong.

I will never forget Jimmy's first day of practice—an inauspicious beginning for sure. He attempted to climb onto the trampoline and in the process somehow put his foot through the springs, fell backward, and almost did a back dive onto the gymnasium floor. For a moment I thought he was going to kill himself. I wanted to teach him how to dive and eventually learn a back dive, but that wasn't what I had in mind! In contrast to Jimmy, everything came more easily for Brian. But despite my preconceived notions and biased expectations, Jimmy prevailed and it was Brian who eventually faded away.

Through sport Jimmy found something he needed in his life, something he couldn't find anywhere else. Sport became his manna, his lifeline, his necessity—a way for him to find self-esteem, pride, belongingness, and salvation. He far exceeded my expectations of what I thought he could achieve and

he reminded me of the superiority of motivation over talent and the power of the human spirit. He was just so determined at that precise moment in his adolescent life to accomplish something noteworthy, to overcome some obstacle, to meet some challenge—to prove to himself that he was a competent and capable human being after all. Every practice was a triumph over the impossible. Within 6 months Jimmy was performing a full list of dives on the 1-meter springboard and several dives on the 3-meter springboard. I learned to believe in the unbelievable.

When I discovered Jimmy would have to quit the team because his parents couldn't afford the monthly \$20 club fee, I told him he could wash and wax my car each month and in return I would coach him. You see, I needed Jimmy as much as Jimmy needed sport. I wanted to pay back the sport but I wasn't prepared for what the sport continued to give back to me. I loved coaching that kid. He had become my manna, my lifeline, my necessity. Watching him come to practice every day and accomplish the impossible stirred my coaching soul and made each practice a gift. And, I had a very clean car.

I lost track of Jimmy so I can't say for sure, but I think—hope—I made a difference in his life to some degree just as several of my coaches made a difference in mine. I know Jimmy made a difference in my life. He taught me the power of hope and determination. Coaching is an amazingly rewarding profession. I don't think any greater profession exists where you can affect the lives of others and at the same time receive such deep and lasting intrinsic reward.

THE BECOMING COACH

This book is not about *being* a coach, it is about *becoming* one. It is about you becoming the kind of coach you dream of becoming—the effective, successful, and unforgettable coach, the coach who knows how to teach, the coach who positively affects the athletic careers and lives of young athletes, the coach kids never forget. Becoming this coach in part means understanding the different learning theories, principles, paradigms, and practices that lead to successful coaching.

This book, then, is about applying principles of psychology to the motor learning and coaching process, just as I did early in my coaching career, to understand not *what* athletes learn and *what* coaches teach but, rather, *how* athletes learn and *how* coaches teach. A number of principles helped guide the writing of this book.

Teaching a motor skill is similar to teaching a subject in a classroom setting. Therefore, principles of psychology that apply to teaching and learning in a classroom also apply to coaching and motor learning in a practice setting.

Cognition plays a role in motor learning just as it does in classroom learning. Learning a motor skill and learning a classroom subject require many of the same cognitive skills. Consequently, many of the cognitive implications associated with classroom teaching and learning apply to coaching and motor learning.

Coaching and learning are about making connections. Rumelhart and Norman (1981) suggest that learning occurs through the formation of analogies. In other words, the process of learning something new involves connecting it with something already known. Each theory in this book examines connections important for effective coaching and athlete learning. For example, respondent (classical conditioning) learning theory examines the connection between positive neutral stimuli and your sport. Operant conditioning learning theory looks at the connection between a behavior and its consequences. Motivation learning theory looks at connections such as the one between internal locus of control and effort.

Effective coaching accelerates motor learning. Any coach will tell you that there is no shortcut to success. Chase and Simon (1973) famously suggested that it takes approximately 10 years or 10,000 hours to achieve expertise in sport and nonsport domains. Whether it is chess, music, mathematics, tennis, or swimming, achieving expertise takes a prerequisite amount of time and, while it may or may not be possible to shorten this time parameter, it is certainly possible to lengthen it through ineffective coaching. On the other hand, effective coaching is like the straight line between two points: the shortest distance. When you understand how athletes learn and how coaches teach, you can help your athletes rapidly improve, getting from point A to point B in the least time.

Effective coaching involves developing athletes' physical, mental, and emotional abilities. Athletes bring three abilities to their sport: physical ability, mental ability, and emotional ability. It doesn't do you much good to develop athletes' physical ability if you don't concomitantly develop their mental and emotional abilities. And, in truth, it may not be possible to teach an athlete without considering all three abilities.

Effective coaching involves developing psychologically healthy, competent, and confident athletes who have a sense of self-worth. This development positively affects their motor learning and performance and their lives after sport. At the center of the teaching process is the individual. As Buscaglia (1984) says, "You don't teach subjects; you teach people." Consequently, one goal as a coach should be to help players grow as human beings and not simply as athletes. The nice thing about such a goal is that it comes back twofold to positively affect motor learning and performance. Individuals who possess a healthy psychological perspective, competence, confidence, and a sense of self-worth tend to be better learners (Brunson & Vogt, 1996) and achievers (Kohn, 1993).

Coaching is both an art and a science. I had the good fortune to work with some amazing athletes who were also amazing human beings. I thank them for their faith in me and their dedication to the program and for acting as guinea pigs during my "longitudinal study" of coaching and motor learning. Although I taught these athletes, they taught me and one of the things I learned from them is that coaching is both an art and a science. While scientific approaches to coaching and training are necessary for coaching effectiveness and athlete success, they neglect an athlete's humanity. Scientific approaches tend to

dehumanize athletes and overlook issues such as feelings, personal values, personal growth, emotions, and communication, all of which are important to human beings. Therefore, a successful approach to coaching includes both art and science. As Eisner (1982) suggests, every successful teaching experience is a result of both art and science. Some coaches believe that the art of coaching cannot be described or quantified; I disagree. Throughout the book I provide specific examples of the artful coach in action.

So, this book is about art—understanding principles of psychology that affect unscientific and less quantifiable factors such as emotions, motivation, expectations, self-worth, and relationships like the one I established with Jimmy years ago. And this book is about science—applying principles of psychology to the motor learning and coaching process, just as I did early in my coaching career, to more fully understand *how* athletes learn and *how* coaches teach.

To be of value, learning theories must have direct application for coaching athletes. Theories don't mean much to coaches unless they lead to specific applications for coaching athletes. Therefore, throughout the text I provide these applications. For example, in discussing humanism I provide guidelines for coaches to follow when applying the nondirective model of coaching. To be even more specific, I provide a mock dialogue between athlete and coach that uses these guidelines. In discussing practice management and discipline, I provide guidelines for creating an atmosphere that engenders appropriate behavior and then give examples of how these guidelines can be applied in a practice setting.

The processes of how athletes learn and how coaches teach are inseparable. Every discussion in this book about the athlete and athlete learning is also a discussion about the coach and coach teaching because both athlete and coach are the dancers and learning and teaching are the dance.

Oh chestnut-tree, great-rooted blossomer,
Are you the leaf, the blossom or the hole?
O body swayed to music, O brightening glance,
How can we know the dancer from the dance?

— Among School Children, by William Butler Yeats

It was the summer before my freshman year in college and I was lifeguarding at a private club. Paul was small for his age. His mother contracted German measles (rubella) during pregnancy and Paul was born blind and deaf. He first attracted my attention because of his love for the water. I think it was the most wonderful thing to him in his world and I wonder how many of us have something in our lives that excites us as much as Paul enjoyed being in the water. He would spend those summer days in the baby pool wading, kneeling, putting his face in the water, running in water circles, slapping the water—and laughing. He liked to lie in the water, look up toward the sky, and rapidly wave his right hand in front of his face. I think he did it because it created

a kaleidoscope-like effect for what little eyesight he had. He would wave his hand and laugh and I asked myself if there was anything comparably simple in my life that I enjoyed nearly so much.

Paul's mother was a warm and loving woman who knew how important the water was to him, but she also worried about his safety, as did I. One day I approached her and asked if I could teach him to swim. She was surprised. I don't think she thought he was capable of learning to swim, especially at such a young age. With her permission I set up a time each morning before the pool opened when Paul and I could work together. That first morning I took his tiny hand and together we waded into the shallow end of the *big boy* pool. It was the beginning of our first dance.

Paul did indeed learn to swim that summer. I refused to accept any money from his mother because my reward was watching him jump into the deep end and swim safely to the side—no more wading pool for this guy. His world just got a lot bigger. It was my joy to see the smile on his face and the sense of accomplishment I imagined he must be feeling. Did I unexpectedly discover something I enjoyed almost as much as Paul enjoyed playing in the water and waving his hand in front of his face? I think so. My freshman year of college I decided to become a teacher.

There is no dance without the dancer. There is no coach if there is no athlete. There is no teaching if there is no learning. And how do we know the dancer from the dance? We don't. The chapters in this book are about both athlete and coach and about both teaching and learning and how, when everything magically comes together, coach and athlete and teaching and learning dissolve into one to create a beautiful and ineffable waltz-like experience.

CHAPTER STRUCTURE

Each chapter begins with a story about an athlete or coach that highlights the significance of the theory under consideration. The introduction is followed by a chapter overview and then the theory is clearly defined and carefully outlined. Perhaps most important, each chapter offers specific applications of the learning theory for coaching athletes. Each chapter concludes with a composite picture of the athlete and the coach and sections titled Your Coaching Toolbox, The Scientific and Artful Coach, and If You Remember Only Three Things. Suggested readings are also provided.

CONCLUSION

I am convinced that coaches can develop into elite coaches just as athletes can develop into elite athletes. This book is written for coaches yearning to reach their greatest coaching potential and be the elite coach they dream of becoming. I hope the information contained in this book contributes to their growth and success as much as it did mine.

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Introduction

The Becoming Coach

Key Terms

active participants cognitive skill empowering games approach motor learning

motor performance motor skill psychology reflective coaching target behaviors target context target skills task analysis

Second semester was always a long stretch of road. Dual meets, championships, and international competitions put me on the road and kept me out of the classroom. I was gone so many days that I only taught first semester each academic year. I have no doubt that I did my best coaching during those semesters when I taught the course Educational Psychology for Teachers. It was an invigorating and inspiring semester. I was reading and thinking about learning theories at night. I was talking about these theories and their applications and creating classroom scenarios to actively engage students in the morning. Then I was coaching and trying to practice what I preached in the afternoon. I was conscious that I was a more effective coach when I was teaching educational psychology than when I wasn't. It wasn't something I had to recall later—I knew then that I was at my coaching best. Second semester would come and I wondered how I could hold on to the coaching magic I experienced the previous semester.

This book exists because of my desire to recapture that magic. Because I was traveling to so many national and international competitions, it was hard to stay grounded. To keep my sanity, maintain my focus, and find a coaching edge I quietly began reading and writing in my hotel room about educational psychology for coaches. I had no intention of publishing a book; I simply wanted to keep the magic rolling and be an effective coach. You could say I wrote this book for a selfish reason: to make myself a better coach. And that is probably true—at least in the beginning.

Reading about respondent conditioning learning theory at night inspired me to create a positive learning environment in the morning. Pairing positive experiences that engendered success and happiness helped me create the salivating athlete, the athlete who couldn't wait to practice. Over a 5-year period, 16 of my athletes made the U.S. national team and reached lifelong goals. Studying cognitive learning theory helped me better understand how athletes think and how cognition plays an important role in motor learning and performance. I found myself asking athletes, "What were you thinking before and during your last performance?" Their responses informed my teaching, accelerated their learning, and helped me shape the supercomputing athlete. Understanding emotion theory helped me see the connection between thoughts, emotions, and performance. Besides asking my athletes what they were thinking about, I found myself asking the emotional athlete what he or she was feeling before and during performance, particularly competition performance.

Like those second semesters, my coaching career was a long stretch of road—over 37 years. Eventually my reason for writing this book changed. Once I decided to publish it, it was no longer just for me; it became a book for coaches—fellow coaches, colleagues, brothers and sisters working in the trenches just like me. I don't profess to be a great coach; many coaches are far more successful than I. But I know what it's like to be the underdog coach and what it means to fight and scrap your way to success. I wanted to write something for those coaches who are trying to find a coaching advantage, become better coaches, and achieve a slice of coaching success.

Each semester I taught, I increasingly included the perspective of the coach and athlete in my curriculum because some of my students were music education majors and prospective teachers who planned to also coach. I wanted to offer those students an experience that would prepare them to work with the aspiring musician and the eager athlete. I wondered why no textbook was available for them. I thought a book on educational psychology for coaches should exist. And now it does.

EDUCATIONAL PSYCHOLOGY

Educational psychology is the field of study in which principles of psychology are applied to the teaching and learning process. **Psychology** is a branch of science that concerns itself with human behavior and thinking. Psychology studies human behavior and thinking by means of scientific methods that rely on consistency, accuracy, precision, and objective methods of measurement. A scientific approach uses procedures and research designs that attempt to eliminate subjectivity, bias, and random factors that might unduly influence the real meaning or significance of a study.

THEORIES

A **theory** is an attempt to summarize and explain what scientists observe. For example, when Pavlov noticed that the dogs in his laboratory began salivating before they could see or smell their food, he eventually formulated his