

ABA Research & Sports

Here are some areas for which ABA research has been used to enhance sports performance. Please note, this is not in any way an exhaustive list. We will continue to update this list, but these are some examples.

General:

Smith, R., E., Smoll, F., L. (1991). Behavioral research and intervention in youth sports. *Behavior Therapy*, 22(3), 329-344.

Martin, G. (2007). *Applied Sport Psychology: Practical Guidelines from Behavior Analysis* (3rd edition). Winnipeg, Manitoba, Canada: Sport Science Press.

Oxley, D. (2009). How to Take the Fun Out of Sports. *Behavior Analysis Digest*, 21(1), 1-2.

Siedentop, D. (1980). *The Management of Practice Behavior in Sport Psychology: An Analysis of Athletic Behavior*. Ithaca, NY: Movement Publications.

Dickinson, J. (1977). *A Behavioral Analysis of Sport*. Princeton, NJ: Princeton Books.

Mertler, C., S. (1974). The use of behavior modification techniques in a sport environment (Doctoral Dissertation, The Ohio State University). *Dissertation Abstracts International*, 35A, 7105A-7106A).

Rushall, B., S. (1975). Applied behavior analysis for sports and physical education. *International Journal of Sports Psychology*, 6, 75-88.

Smith, R., E., Smoll, F., L., & Hunt, E., B. (1977). A system for the behavioral assessment of athletic coaches. *The Research Quarterly*, 48, 401-407.

Swimming

Koop, S., & Martin, G. L. (1983). Evaluation of a coaching strategy to reduce swimming stroke errors with beginning age-group swimmers. *Journal of Applied Behavior Analysis*, 16, 447-460.

Mckenzie, T. L., & Rushall, B. S. (1974). Effects of self-recording on attendance and performance in a competitive swimming training environment. *Journal of Applied Behavior Analysis*, 7, 199-206.

Cracklen, C. & Martin, G. L. (1983). Earning Fun with Correct Techniques. *Swimming Technique*, 20.

Hume, K.M., & Crossman, J. (1992). Musical reinforcement of practice behaviors among competitive swimmers, *Journal of Applied Behavior Analysis*, 25.

Dowrick, P.W., & Dove, C. (1980). The use of self-modeling to improve the swimming performance of spina bifida children. *Journal of Applied Behavior Analysis*, 13, 51-56.

Rushall, B.S. and Pettinger, J. (1969). An evaluation of the effect of various reinforcers used as motivators in swimming. *Research Quarterly*, 40, 540-545.

Bell, K., F. (1974). Effects of self-monitoring and graded practice in interval training on performance in a competitive swimming environment. (Doctoral dissertation, University of Texas at Austin). *Dissertation Abstracts International*, 35, 2758A.

Rushall, B., S., & Siedentop, D. (1972). The modification of the quality and quantity of behavior categories in a swimming coach. *Journal of Sports Psychology*, 1, 138-150.

Baseball

Osborne, K., Rudrud, E., & Zezoney, F. (1990). Improved curveball hitting through the enhancement of visual cues. *Journal of Applied Behavior Analysis*, 23, 371-377.

Heward, W., L. (1978). Operant conditioning of a .300 hitter? The effects of reinforcement on the offensive efficiency of a barnstorming baseball team. *Behavior Modification*, 2, 25-39.

Dance

Quinn, M., Miltenberger, R., & Fogel, V. (2015). Using TAGteach to enhance proficiency in dance movements. *Journal of Applied Behavior Analysis*, 48, 11-24.

Fitterling, J. M. & Ayllon, T. (1983). Behavioral coaching in classical ballet. *Behavior Modification*, 7.

Under Review:

Quinn, M., Miltenberger, R., Abreu, A., & James, T. An evaluation of auditory feedback for students of dance: Effects of giving and receiving feedback.

Quinn, M., Miltenberger, R., Abreu, A., & Narozanick, T. An evaluation of public posting and graphical feedback to enhance the performance of competitive dancers.
Football

Allison, M.G., & Ayllon, T. (1980). Behavioral coaching in the development of skills in football, gymnastics, and tennis. *Journal of Applied Behavior Analysis*, 13, 297-314.

Komaki, J., & Barnett F. T. (1977). A behavioral approach to coaching football: improving the play execution of the offensive backfield on a youth football team. *Journal of Applied Behavior Analysis*, 10, 657-664.

Ward P., & Carnes, M. (2002). Effects of posting self-set goals on collegiate football players' skill execution during practice and games. *Journal of Applied Behavior Analysis*, 35, 1-12.

Wyatt, J. (Ed.). (2009). If the Football Team Isn't Good, Can Behavior Analysis Improve It? *Behavior Analysis Digest*, 21(1), 4.

Rock Climbing

Fleming, R., K., Horst, E., J. (2010). Behavior analysis and sports climbing. *Journal of Behavioral Health and Medicine*, 1(2), 143-154.

Figure Skating

Hume, K. M., Martin G. L., Gonzalez, P., Cracklen, C., & Genthon, S. (1985). A self-monitoring feedback package for improving freestyle figure skating practice behaviors, *Journal of Sport Psychology*, 7.

Volleyball

Ziegler, S., G. (1978). The effects of factual feedback and factual feedback with social reinforcement on a volleyball coach's behavior (Doctoral dissertation, West Virginia University). *Dissertation Abstracts International*, 39, (3-A), 1424-1425.

Soccer

Effects of public posting, goal setting, and oral feedback on the skills of female soccer players. *Journal of Applied Behavior Analysis*, 35, 247-257.

Luyben, P., Hansen, R., Hardy, J., Leonard, T., & Romero, J., Behavioral athletics: Improving shooting accuracy on a college varsity women's soccer team. Paper presented at the meeting of the Association for Behavior Analysis, Dearborn, Michigan, May 1980.

Basketball

Roane, H., S., Kelley, M., E., Trosclair, N., M., Hauer, L., S. (2004). Behavioral momentum in sports: A partial replication with women's basketball. *Journal of Applied Behavior Analysis*, 37(3), 385-390.

Martial Arts

BenitezSantiago, A., & Miltenberger, R. (in press). Using video feedback to improve martial arts performance, *Behavioral Interventions*.

Using Auditory Feedback to Improve the Performance of Judokas during Uchi Komi.

Golf

Fogel, V., Weil, T., M., & Burris, H. (2010). Teaching a golf swing through behavioral procedures: Evaluating the efficacy of TAGteach. *Journal of Behavioral Health and Medicine*, 1, 25-41.

Simek, T.C., & O'Brien, R.M. Total golf: A behavioral approach to lowering your score and getting more out of your game. Garden City, N.Y.: Doubleday, 1981.
Weight Lifting

Darden, E., & Madsen, C., H. (1972). Behavior modification for weightlifting room problems. *College Student Journal*, 6, 95-99.

In Preparation:

Mulqueen, D., Crosland, K., & Miltenberger. Using video modeling and video feedback to improve Olympic weightlifting technique.
Track

Wack, S., Crosland, K., & Miltenberger, R. (2014). Using a goal-setting and feedback procedure to increase running distance. *Journal of Applied Behavior Analysis*, 47, 181-185.

Horseback Riding

Kelley, H., & Miltenberger, R. (2016). Using video feedback to improve horseback riding skills, *Journal of Applied Behavior Analysis*.

Tennis

Buzas, H.P. & Ayllon, T. (1981). Differential Reinforcement in Coaching Tennis Skills. *Behavior Modification*, 5.

Gymnastics

Boyer, E., Miltenberger, R. G., Batsche, C., & Fogel, V. (2009). Video modeling by experts with video feedback to enhance gymnastics skills. *Journal of Applied Behavior Analysis*, 42, 855-860.

Summary of ABA studies as applied to all different sports

Martin, G. L., Thompson, K., & Regehr, K. (2004). Studies using single-subject designs on sport psychology: 30 years of research. *The Behavior Analyst*, 27, 263-280.